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Archives of Dermatology and Syphilology

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HEREDITARY HEMORRHAGIC TELANGIECTASIA

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CASE 1.—On Jan. 11, 1926, there came to my office a woman, aged 56, whose face was literally studded with telangiectasia, the lesions varying from dots hardly more than 1 mm. in diameter to dusky red patches 4 or 5 mm. in diameter, at the borders of some of which were radiating venules. Some of the lesions presented a fairly uniform color; others consisted of a network of dilated venules; still others were typical spider nevi. Most of the spots were smooth and level with the skin, while others were slightly elevated. Besides the face, the ears and the sides of the neck were affected. There were red spots also on the mucous membranes of the cheeks, gums and hard and soft palate and a very few on the forearms. The rest of the body was free. The nasal mucosa was not examined. Questioning elicited a history of nosebleed from childhood. The telangiectasiae were first noticed when the patient was 21 years old, and were then very small. They increased gradually, more rapidly after the birth of her two children, who are now 27 and 28 years old, and still more rapidly during the past four or five years. In answer to direct questions, the patient stated that a cut would always bleed freely, but heal promptly. However, as there seems to have been no excessive bleeding at parturition, it is doubtful that there is any real hemophilia. There was no history of blood in the stools or in the urine. The patient was in good health, and came only for a diagnosis. She declined any operative treatment for the telangiectasia. Her father and her oldest brother had a similar condition, while her mother, her twelve brothers and sisters and her two children were exempt as far as she knew. Her affected brother has no children, and she herself has no grandchildren.

This is a classic case of hereditary telangiectasia. Steiner [1] has given an excellent account of the disease, and Goldstein [2] has published a review of this and similar conditions, with an extensive bibliography. He collected from literature the report of thirty families affected by this condition, and added another family to the group.

The essentials of the disease are as follows:

1. The occurrence of nosebleed in childhood, often recurring throughout the life of the patient, and sometimes associated with bleeding from other mucous membranes, or even, after traumatism,

1. Steiner, Walter: Arch. Int. Med. **19**:194 (Feb.) 1917.
2. Goldstein, H. I.: Arch. Int. Med. **27**:102 (Jan.) 1921.

from the skin. The bleeding may decrease as the patient grows older, or may become more and more serious and finally prove fatal.

2. The development of telangiectasiae, sometimes as dilated capillaries, sometimes as a network of dilated venules, more characteristically as spider nevi; occurring sometimes in youth, more often in adolescence or adult life, and usually increasing with the passing years.

3. The occurrence of these symptoms in several members of the family. Usually the same individual presents both groups of symptoms, but sometimes one group or the other may be missing in an individual case, as appears in the following report.

CASE 2.—The day after this patient visited me, there came to the office D. B. A., a boy, aged 10½ years, with a typical spider nevus a little beyond the outer canthus of the right eye. It had been present three or four years and was gradually increasing. He also had a rather pale flat nevus on the left upper eyelid. This had not been noticed by the mother, and its duration is uncertain. This child had no nosebleed, but two brothers had nosebleed but no telangiectasia, while the fourth child, a girl, was exempt. The mother of these children had suffered frequently from nosebleed, and had seven spider nevi on the face, which had been removed several years before the visit; while her mother suffered frequently from nosebleed, and had many small dilated veins on the face in adult life.

It will be interesting to watch these children to see whether they develop more lesions in adult life. The interest in this family lies partly in the occurrence of the characteristic groups of symptoms separately in the last generation, but more particularly in the mild character of the manifestations. If this boy had not come in so soon after a characteristic example, he would have been put down as having a simple case of spider nevus. It is altogether probable that many cases are overlooked for lack of proper questioning.

The hereditary character is, I believe, necessary for diagnosis, and it is precisely this feature which is sometimes difficult to establish.

CASE 3.—One morning about a week or two after the visits of the patients described, a man, aged 50 years, came to the dispensary for an eruption of the hands, which proved to be dermatophytosis. On the right cheek, below and behind the outer canthus, was a typical spider nevus, and on questioning a history was obtained of profuse and frequent nosebleed, up to the age of 17 years. No history could be obtained of the occurrence of the disease in any other member of the family, but the man was an Italian who spoke very little English, and the disease might well have been present in his family without his knowledge.

Within a week or two, I reported these cases to a small group of physicians, one of whom then stated that he himself was a victim of the disease, and that at least four members of the family in three generations had suffered from it.

CASE 4.—Two days later still another case was discovered in the dispensary, in a man, aged 27, with a small spider nevus of uncertain duration near the right eye, a small vascular nevus on the soft palate and a history of frequent nosebleed. His sister also had nosebleed, but no other family history was obtainable.

Here we have four cases complete in every respect, and a fifth in which only the family history is lacking, all observed within four weeks, of a disease which is not mentioned in the majority of textbooks on dermatology, and which is supposedly so rare that only about thirty-two families are reported in medical literature.

I believe that the disease is exceedingly common, and that its frequency will be established if every physician who sees a spider nevus will ask about the occurrence of nosebleed in the patient and in others of the family.

SIGNIFICANCE OF CUTANEOUS STIMULI FOR PROTECTION OF THE BODY AGAINST INFECTION*

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In 1919, E. Hoffmann introduced into medicine the concept of esophylaxis. He means by this term a defensive function of the skin which protects the body as a whole. Hoffmann emphasizes the importance of cutaneous reactions for the protection of the internal structures of the body. This concept has assumed increasing significance in many questions of pathology and therapy during the last several years. In the following pages I purpose to show how mechanical, thermal, actinic and bacterial stimuli acting on or in the skin may be of importance in the problem, and how through our newer views of the anatomy and physiology of the skin it is possible to explain the nature of such esophylactic action.

ANATOMIC AND PHYSIOLOGIC REMARKS

The Epithelium of the Skin.—As is well known, the skin is a mixed tissue. The epidermis is derived from the ectoderm; from the mesoderm are derived the connective tissues, the cutis (on which the epidermis rests) and the blood and lymph vessels; the nerves are again of ectodermic origin. The avascular epidermis derives its nourishment from the cutis. Biologically, therefore, epidermis and cutis belong together.

In the fully developed epidermis we distinguish five layers which, biologically, represent different stages in the development of the epithelial cells. The lower stratum germinativum and stratum spinosum are water-rich and gradually pass over into the drier stratum granulosum and stratum lucidum to end in the fifth and outermost horny layer. As the growth of these cells proceeds from below, this lower part is the most vital, a fact expressed, histologically, by its marked ability to take up dyes (Kyrle). There are no vessels in this superficial skin, the cells being bathed by a lymph which circulates in the spaces between the epithelial cells. These intercellular spaces constitute a heavily branching network of canals which communicate directly with the lymph channels of the cutis.

How does one of these cells react to a stimulus? According to Bernstein-Hoeber, there is a relationship between the state of excitation of a cell and its permeability. Increase and decrease in permeability

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parallel activity and rest in a cell as proved by indicator and electrical measurements. Such changes in permeability must obviously favor the entrance or exit of materials from the cell through which the activity of its ferments may be altered. "Internal secretion" and "hormone production" by a cell may in this fashion be broadened to represent a property of all tissues (Ebbeke). Substances produced in the skin may, therefore, pass into the lymph and blood and so affect the whole organism.

The Blood Vessels of the Skin.—The blood vessels of the integument are of importance in our discussion. The papillae carry a subpapillary capillary net which consists of delicate, anastomosing vessels running, in the main, parallel to the surface of the skin. As these are tortuous and branching, they have great surface. This capillary system coalesces to form the descending veins. The venous blood returning from the capillaries passes through four nets. The first and second lie immediately under the surface of the papillae but still outside the subpapillary arterial net. The third venous network is found in the lower half of the cutis and the fourth at the junction of the cutis with the subcutis. A coarser arterial network, still capable of being affected mechanically, parallels the subpapillary vessels. A heavily branching set of blood vessels, through which there moves a large volume of blood readily accessible to the effects of stimulation, is, therefore, found immediately under the epidermis.

The vessels of the skin react to various stimuli with either an increase or decrease in caliber. As Krogh and his pupils have shown, the number of capillaries which become patulous in different organs increases and decreases with the activity and rest of that organ. Tsang Ni has studied the effects of mechanical stimulation on the number of capillaries thus opened in the human skin and found a decided increase after irritation. Without entering into a discussion of the mechanism of this capillary contractility, it is probably safe to say that the endothelial cells play a leading rôle. Rosenthal, in continuing the older studies of Wysskowitsch, has shown that capillary endothelium acts phagocytically, especially when irritated. Foot calls these cells endothelial phagocytes. It is probable that such endothelial cells or their descendants may become the leukocytes of the circulating blood.

Since endothelial cells of the skin because of their position are readily accessible to stimulation, it is reasonable to suppose that they must be of large significance in the defensive mechanisms of the organism. Since they constitute, moreover, a part of the reticulo-endothelial system to which such importance has been assigned in the defense against infection, we may discuss this system somewhat further. Under the reticulo-endothelial system are today included the reticulo-endothelial cells and the histocytes of Aschoff, the monocytes of Pappenheim and the color-

storing elements of the loose connective tissue and of the adventitial sheath of the blood and lymph vessels. Of importance in the skin are the vessel elements, the histocytes of the tissues and the fibrocytes or ordinary connective tissue cells. There should also be included, perhaps, the chromatophores and the cells of adipose tissue. As the so-called cells of Langerhans as well as other cells of the reticulo-endothelial system store dyes, Masson regards these, too, as descendants and peripheral representatives of the reticulo-endothelial system. Pautrier and Lévy are of the same opinion. Of what significance is this reticulo-endothelial system in the problem of esophylaxis?

Observation on human beings shows that changes in the reticulo-endothelial system greatly affect the course of infections. Both increase or decrease in the cellular and humoral defensive reactions have been observed. Siegmund is of the opinion, as are Neufeld and Meyer, that every antibody-forming antigen affects the reticulo-endothelial system. These authors hold that the reticulo-endothelial cells constitute the only tissues in which antibodies are formed. My own experiments, which are a continuation of Oeller's and which had to do with the stagnation of intravenously injected chicken blood corpuscles into the skin of the guinea-pig, showed that the blood vessels of the skin also react to such injections. Even though the skin of the guinea-pig is not particularly reactive, the experiment shows that skin capillaries play a part in the phagocytosis of chicken corpuscles. We observed the corpuscles to stick to the capillary endothelium especially after the skin had been irritated. After taking up the blood corpuscles, the endothelial cells were definitely enlarged. At the same time, we noted a slight new growth of cells which Siegmund has designated lymphoid-plasma cell transformation.

It need not be reiterated that these reticulo-endothelial reactions occur in all organs. The importance of the skin rests in the fact that this constitutes a superficial and therefore readily accessible organ.

The significance of the reticulo-endothelial system in these biologic reactions has not, of course, gone unchallenged. Maximow and Bergel have voiced protest. The views expressed serve, however, to render more intelligible the immunobiologic phenomena observed in the skin.

The Nerves of the Skin.—Scarcely any organ is possessed of as highly developed and differentiated nerve mechanisms as the skin. The effects of all kinds of stimuli on these mechanisms must obviously be large. Over the sensory tracts innumerable nervous centers and internally situated organs may be called into play. Reflexes initiated in one skin area may, through the central nervous system, affect another. The stimulation of one skin area with its vasomotor effects may thus express itself not only locally but in other regions of the skin or mucous mem-

brane. Van Breemen has shown that the skin with its vasomotor apparatus acts like a single organ. As an example of a reflex from skin to internal organ, I need but cite the effect of (painful) skin stimuli in contracting the blood vessels of the splanchnic region with simultaneous relaxation of those of the muscles and central nervous system.

The connection between skin and internal organs over nervous paths has been emphasized repeatedly by the physiologists. Recently Almeida and Wertheimer have confirmed the well-known fact that in the frog the skin affects the tonus of the muscles. Almeida could show that the skin is of importance in the coordination of movement and for the proper function of the whole central nervous system. Since Sherrington and Head's discoveries, we are familiar with the nervous connections existent between the segments of the spinal cord and the internal organs (Head's zones). Clinically, we therefore designate the pains radiating from internally situated organs into the skin as reflex pains to distinguish them from the pains resident in the organs themselves.

In 1921, E. F. Mueller noted in man a fall in the number of leukocytes present in the peripherally circulating blood after intracutaneous injections. This Mueller phenomenon initiated the discussion of the significance of the skin in immunologic reactions. The results obtained by the various workers on this question may be summed up in the statement that the fall in the number of leukocytes is probably dependent on a parasympathetic nerve reflex and that it is really true that very slight skin irritations may have large effects on the entire organism.

A word is necessary regarding the modern concept of the formation of immune bodies. Pfeiffer regards it as reflex in nature, and has, with others, adduced experimental proof for such a view. As will be shown later, a distinct increase in the content of immune bodies in the blood may be brought about through stimulation of the skin. Many observers therefore believe that immune body formation occurs in the reticuloendothelial system, which may be excited to the secretion of immune bodies into the blood over nerves resident in and stimulated in distantly situated organs like the skin. Such a view permits a glimpse of the importance of the cutaneous nerves for such reactions.

BIOLOGIC REMARKS

Having seen that the easily accessible skin is possessed of many mechanisms which are of importance in the defense against infection, let us see whether through stimuli acting on the skin it is possible, practically, to produce changes in the body cells and fluids which are protective in character or, at least, may be regarded as protective. It is hard to show how the separate elements of the skin behave in this matter, since what affects one so frequently affects another. Thermal

effects will not be taken up separately, since they accompany most other forms of stimulation.

Actinic Stimuli.—It has been observed that sympathetic tonus usually falls for from twenty-four to forty-eight hours after intense illumination of the skin (Rothmann, Pincussen). This fall expresses itself also in a fall of the blood sugar level and in a change in the catabolism of the purins. After intense illumination, there is also a rise in the tyrosin of the blood. Since, according to Neuberg, exposure to intense light brings about proteolysis and the splitting off of the ring compounds from the protein molecule, we may assume that a similar set of changes may occur in the skin. A splitting off of the readily diffusible tyrosin and its appearance in the blood stream has been proved. Such change may be regarded as a sort of internal secretion. My own experiments have demonstrated the existence of physicochemical changes in the blood after such illumination of the skin.

Koenigsfeld's studies furnish experimental proof of the immunobiologic correlation between the skin and internally situated organs. He observed in guinea-pigs exposed to light an increase in the titer of typhoid agglutinin, hemolysin and precipitin. In mice he observed a slower growth of mouse carcinoma, which he explains through an increased general resistance. Similar findings have been described by Murphy, Hussey, Nakahara and Sturm and by Murphy, Maisin and Sturm, among others. Other authors who have noted an effect of light on immunologic reactions are Staeubli and Hansen. Hausmann has covered the subject in a review. How the light affects the peripheral blood vessels is shown especially well in the classic arm experiment of Finsen.

Light effects on the skin have served many a useful therapeutic purpose, especially in tuberculosis, rickets and all clinical states in which a speeding up of metabolism and thus a strengthening of the body is desired. We need to recall especially the observation of Jesionek who healed lupus by screening the affected area but exposing other skin areas to light. We observe in this instance how actinic stimuli affect not only the area to which they are applied, but distant ones.

Mechanical Stimuli.—Mechanical stimulation of the skin may also call forth powerful esophylactic effects. Many empiric and experimental facts prove this. Thus Langstein and Vollmer found that inunctions of hormones and tar salve markedly increased metabolism. Giesemann describes the tonic effects of the energetic inunction of an emulsion consisting of casein, ethereal oils and bacterial proteins. Funk believes that the morbidity period of mumps and its complications (orchitis) may be reduced through massage of the skin with proteins. Merk emphasizes that in the inunction treatment of syphilis a significant non-

specific factor is contributed by the rubbing itself. Jarisch noted after inunction with a salve containing but a trace of turpentine, good effects on the syphilitic manifestations in untouched skin portions, so that he had to assume effects produced at a distance.

How about mechanical skin stimulations which work intracutaneously and deeper? Let us first consider the superficial cauterizations. Flu, in his review of Oshikawa's work, pointed out that even slight cauterizations of the ear of the rabbit raised the agglutinin titer of its serum. The result might be explained through the stimulating effects of absorbed proteins, for Vaccarezza showed that poisonous substances enter the blood stream from the burned areas within a few minutes after the skin has been cauterized.

The effects of intracutaneous injections will not be discussed, since in this form of skin stimulation, depending on the type of material injected, specific effects may outrun the general.

Baths exert a more definitely mechanical effect. The views of Bloch and Hoffmann regarding the biologic function of the skin and the theoretic notions underlying the use of stimulation and proteins in therapy, have given rise to a large number of papers which have tried to bring light into the dark field of the therapeutic effects of baths. Weskott has recently collected the major portion of the more important contributions, so that I may be brief. As is generally known, a so-called "bath-reaction" generally follows all thermal bath "cures," irrespective of where such a bath may be located, or its kind, and this is characterized by the fact that the patient grows worse. Following this there is a persisting improvement. This reaction is observed even if the baths are of distilled water. Most observers attribute the phenomenon to an esophylactic reaction of the skin similar to the so-called negative phase of protoplasmic activation. Exact studies of the problem are at hand. Of them I should like to mention the papers of Stahl and Schmegg and of Freund and Gottlieb, who tried to prove that the effects of such baths and of skin stimulation were identical. In both instances tonus changes occurred in the vegetative nervous system. Warm baths or the injection of irritants gave rise to vagotonia; cold baths to increase in sympathicotonia. Either may influence the defensive mechanisms of the body. We observe here effects entirely similar to those produced by light.

It is believed that the baths used in typhoid, scarlet fever, smallpox and diphtheria also exert esophylactic effects. Hot baths produce good effects in cholera and meningitis. The heat is supposed to stimulate the internal secretion of the skin, especially in the latter instance. Mention should also be made of the warm or hot baths used in syphilis in connection with its inunction treatment and of the hydrotherapeutic schemes employed in tuberculosis.

Bacterial Stimuli.—Bacteria, whether they enter the skin from without or within, may stimulate it as do the mechanical or actinic factors just discussed. As is well known, bacteria may reach the skin through the blood stream, be deposited there and thus stimulate their surroundings. The typhoid bacillus may be isolated from the rose spots and the specific organism concerned from other exanthems.

Bacteria may also penetrate the skin from without. As early as 1883, Babes' observations on leprosy indicated that the bacillus of leprosy might pass through the intact skin by way of the hair follicles. Interest in this so important general question was, however, first evoked through Garré's classical experiments. Garré showed that staphylococci could pass into the lymph vessels through the intact skin by way of the ducts of the skin glands. It would take us too far afield to discuss all the contributions which confirm Garré's studies. Koenigsfeld has made a fairly complete summary of the literature covering this field.

How does the skin respond to such bacterial excitants and what becomes of the bacteria in the skin? Courmont, Lesieur, Lewandowsky, and lately Koenigsfeld, among others, found that any such infection—as, for example, tuberculosis, spreads only slowly from and through the skin, and that the infection is to be looked on as benign. The extensive observations of Neuberg and Lange have shown how highly virulent organisms (such as streptococci and the organisms of hog cholera, mouse typhoid and chicken cholera) may, in their passage through the skin into the lymphatics, suffer a reduction in virulence. The defensive action of the skin explains the injury which the invading organisms suffer and the so common noninfection of the host, or the benign and chronic nature of any resulting infection. This property of the skin of altering bacteria in their passage and of thus bringing about a protective immunization instead of an acute disease has been designated its "filtration effect" by Boehme. Boehme has devised, on this basis, a successful inoculation of swine against hog cholera. The old Jenner method of inoculation against smallpox seems to be built on a similar foundation.

Does the skin produce antibodies or may antibodies be demonstrated in it? Studies of the subject are at hand. Fellner was able to demonstrate in the papules which follow von Pirquet's tuberculin inoculation, the existence of substances which increase the tuberculin reaction. He calls these "procutins." The well-known experiment of Bloch, who was able to transplant a fragment of guinea-pig skin sensitized to tricophyton infection to another pig without loss of sensitiveness, proves that the skin really contains the products of specific diseases.

Martenstein and Schapiro have reviewed this field in detail. The experiments of Bogendoerfer require special mention. This investigator mixed diphtheria toxin with hashed, immunized human skin in vitro. The toxin was inhibited or destroyed. The finding is not to be interpreted

as an adsorption effect because the skin of nonimmunized subjects gave no such results.

Experiments have also been made to discover evidence for the formation or increase of antibodies derived from the skin in the blood. In these experiments the production of agglutinins was determined after the intracutaneous injection of an antigen. Most observers found that antibodies could actually be produced in the skin, as, for example, Koehler and Heilmann, Fernbach and Haessler, Hartoch, Muratowa, Joffe and Beer.

The importance of the skin in all these questions centers in the fact of its position; it is in consequence accessible to all types of stimulation. After every type of skin stimulation, changes occur in the blood which are demonstrable physicochemically. These are evidenced by changes in the colloid stability of the plasma, as made manifest by determination of its viscosity, surface tension, refractometer value, gold number or the sedimentation rate of the red corpuscles. Whether these changes are induced through direct effects on the blood is not certain. It is a possibility which has to be considered, since large amounts of blood are readily accessible to the direct action of stimuli in the blood vessels of the skin. Secondary effects may be produced reflexly, as indicated in our discussion of the formation of immune bodies. How these physicochemical changes are to be correlated with immunobiologic ones we do not yet know.

COMMENT

The purpose of this paper was to indicate how stimulation of the skin may be induced and what its effects may be. I wished, chiefly, to show how the many important questions which discussion of E. Hoffmann's concept of esophylaxis has given rise to may be attacked experimentally, and what direction clinical observation, supported by modern physiologic and immunobiologic concepts, needs to take.

INFANTILE ACNE VULGARIS

A REPORT OF THREE CASES

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Puberty and adolescence are almost universally recognized as of primary importance in the etiology of acne vulgaris. Other factors which are often blamed, such as constipation, irrational diet, malnutrition, etc., are just as likely to occur at any other period in life. Many cases outlast adolescence, and a small proportion begin later in life, but these are more likely to be of the rosacea type.

Without exactly saying so, many authorities have acquiesced in the idea that acne vulgaris is of endocrine origin. The bacteria usually found are simply secondary invaders which have taken advantage of a favorable soil consisting of excessive oil or comedones. It has never been definitely determined whether comedones result from excessive activity or defective activity of the sebaceous glands. In either event, it would appear that the endocrine system, gonads, thyroid, etc., coming into increased activity during adolescence in some way affect the sebaceous glands.[1]

The practically complete absence of any mention in current textbooks on dermatology of the occurrence of acne during infancy or early childhood still further emphasizes the importance of the changes occurring during puberty and adolescence in the causation of the disorder.

Only one case of infantile acne was found in a review of medical literature during the past fifteen years.[2] The fact that acne can occur during infancy is a matter of interest, not only because of its rarity but because of the bearing it may have on etiology. This association would not argue against the endocrinous origin of acne, since glandular hyperfunction is occasionally found during early infancy, such as lactation of the new-born and seborrhea of the scalp.

The case referred to above was reported by Beatty and Bigger. The patient was a boy, 6 months old, who had had acne of the cheeks with comedones, papules and pustules for about three months. The patient was otherwise normal. No oil or other applications had been used previously on the child's face. Bacteriologic investigations disclosed the acne bacillus and *Staphylococcus albus*.

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1. Hollander, Lester: The Rôle of the Endocrine Glands in the Etiology and Treatment of Acne, Arch. Dermat. & Syph. **3**: 593 (May) 1921.

2. Beatty, Wallace, and Bigger, J. W.: Acne in an Infant, Brit. J. Dermat. & Syph. **35**:325, 1923.

The three cases reported below were all seen within a period of ten months.

REPORT OF CASES

CASE 1.—C. L., a boy, aged 22 months, presented an eruption confined to the chin, consisting of typical comedones and a few papules and pustules. The eruption was said to have been present two months. The patient was otherwise in good health, except for a tendency to constipation. He had been breast fed for two months, but placed on artificial feeding because the mother had to work away from home. Several months after the first visit, he was treated for acute tonsillitis. Five months after the first visit, he was brought in with an acute eczema of the face, arms and legs of two days' duration, which the mother thought was due to eating fresh green peas which had caused an intestinal upset. The acne had improved very little under irregular applications of lotio alba.

CASE 2.—R. E., a boy, aged 5 months, had had the eruption since he was 10 days old; but pustules had been present only during the past two months. He was breast fed until three weeks ago, when he was put on a formula because of diarrhea lasting a week. His general condition was now normal except for the eruption which occurred on the cheeks and to a slight extent on the chin. There were numerous comedones, papules and pustules. Many of the latter were of the deep, indurated, boggy variety. The patient was given lotio alba, seven weekly injections of combined acne and staphylococcus vaccine and seven weekly treatments with the Kromayer lamp with pressure. At the last visit the condition showed marked improvement with almost complete absence of comedones. Four months later, the improvement had been maintained; lotio alba was being used intermittently.

CASE 3.—R. R., a boy, aged 8 weeks, had had the eruption since birth. It had remained unchanged. The baby was being fed at the breast exclusively and was otherwise in good health. The skin showed a degree of oiliness comparable to that seen during adolescence. There were a few comedones on the chin and nose and a moderate scattering of pin-point to pinhead sized papules and pustules. All the lesions were superficial. There was a diffuse unctuous scaling of the scalp. The baby was given an ointment of sulphur and salicylic acid for the scalp and a 3 per cent ammoniated mercury ointment for the face. One month later, the father reported that the face was much improved, although some of the comedones were still present.

SUMMARY

Three cases of acne vulgaris are reported occurring in infants. All of the patients are boys. Two of the patients were being fed on breast milk exclusively at the time the eruption began. All of the patients were otherwise normal, except for slight constipation in one and later a brief attack of acute eczema, seborrhea of the scalp in one, and a brief attack of diarrhea in one.

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GRANULOMA INGUINALE

CLINICAL OBSERVATIONS, VACCINE TREATMENT AND ALLERGIC REACTIONS *

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REVIEW OF THE LITERATURE

Conyers and Daniels [1] were the first to describe granuloma venereum as a clinical entity, and they considered it to be a form of lupus. In 1897, Galloway [2] first called it granuloma inguinale and gave a good description of the pathologic changes. Good clinical descriptions have been given by many writers since that time, including Maitland,[3] Aragao and Vianna,[4] Pijper,[5] Schochet,[6] and Goodman,[7] who called attention to the frequency of the disease in the United States.

Histologic descriptions were given by Galloway,[2] Campbell,[8] Schochet,[6] and Flu.[9] In our opinion, the last author has given the most detailed and accurate description of the pathology.

Wise [10] and Maitland [3] thought that the disease was caused by a spirochete; LeDantec [11] and Conyers and Daniels [1] believed it to be a

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* From the Pathologic Laboratories, New York City Hospital, Dr. Leon H. Cornwall, director.

1. Conyers, J. H., and Daniels, C. W.: The Lupoid Form of the So-Called Groin Ulceration of This Colony, Brit. Guiana M. Ann., 1896, p. 13.

2. Galloway, J.: Ulcerating Granuloma of Pudendum, Brit. J. Dermat. **9**:133, 1897.

3. Maitland, J.: On Chronic Venereal Sores or Ulcerating Granuloma with an Illustrative Case, Lancet **1**:1625 (June 17) 1899.

4. Aragao, H. de B., and Vianna, G.: Untersuchungen über das Granuloma venereum, Mem. do. Instituto Oswaldo Cruz. **5**:211, 1913.

5. Pijper, A.: On the Etiology of Granuloma Venereum, South African M. Rec. **16**:20, 1918.

6. Schochet, S. S.: Granuloma Inguinale, Surg., Gynec. & Obst. **38**:759-766 (June) 1924.

7. Goodman, H.: Ulcerating Granuloma of Pudenda, Review of Literature with Bibliography and Some Observations of Disease as Seen in Porto Rico, Arch. Dermat. & Syph. **1**:101 (Feb.) 1920.

8. Campbell, M. F.: Granuloma Inguinale, J. A. M. A. **76**:648 (March 5) 1921.

9. Flu, P. C.: Die Aetiologie des Granuloma venereum, Arch. f. Schiffs u. Tropenhyg. **15**:481, 1911.

10. Wise, reported by Gage, J. M.: Footnote 22.

11. LeDantec, reported by Fraser, A. R.: Brit. J. Dermat. **37**:14 (Jan.) 1925; ibid., J. Neurol. & Psychiat. **13**:227 (Feb.) 1925.

form of tuberculosis; Rabello [12] considered it as caused by sporothrix; Pijper [5] indicated the *Chlamydozoa* as the etiologic factor; Donovan [13] believed it to be caused by "epithelial cell parasites belonging to the gregarian order of *Sporozoa*." Carter [14] thought that a protozoon was the causative factor. Symmers and Frost [15] suggested that Donovan's organism was the causative agent.

Many observers have given good descriptions of the morphology of the organism in smears, namely, Siebert,[16] Flu,[9] Martini,[17] Carter,[14] Aragao and Vianna,[4] de Sousa Aranjo,[18] Walker,[19] Bonne and Verhogen,[20] Symmers and Frost,[15] Lynch,[21] and Gage.[22]

Organisms have been cultured from the lesions by previous workers, but it is our impression that they were not dealing with the same organism that we have isolated. In some cases at least, the organisms described were, in our opinion, secondary invaders. Aragao and Vianna,[4] Flu,[9] Randall, Small and Belk,[23] Walker,[19] Campbell,[8] Aranjo,[18] and Siebert,[16] all thought that the organisms they observed in cultures and in smears belonged to *Bacillus mucosus-capsulatus*, Friedländer group. Martini [17] obtained a culture of an organism, which he called *Diplococcus histolyticus*.

Walker [19] and other workers reported the death of guinea-pigs and rabbits in twenty-four hours after intraperitoneal injection of what they called the specific organism. Subcutaneous inoculation of monkey and

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12. Rebello, reported by Pijper: Footnote 5.

13. Donovan: Ulcerating Granuloma of the Pudenda, Indian M. Gaz. **40**:414, 1905.

14. Carter, M.: Ulcerating Granuloma of the Pudenda a Protozoal Disease, Lancet **2**:1228 (Oct. 15) 1910.

15. Symmers, D., and Frost, A. D.: Granuloma Inguinale in the United States, J. A. M. A. **74**:1304 (May 8) 1920.

16. Siebert, W.: Zur Aetiologie des venerischen Granuloma, Arch. f. Schiffs u. Tropenheilk. **12**:12, 1908.

17. Martini: München. med. Wchnschr., 1912, p. 2378.

18. Aranjo, de Sousa: Heraclides Caesar: Granuloma Venereo Reo de Janerio, 1917, p. 246. Companhia Lithographica Ferrara Pinto.

19. Walker, E. L.: Granuloma Inguinale, Etiology of, J. M. Res. **37**:427 (Jan.) 1918.

20. Bonne, C. en Verhogen, A.: Ein geval von venerisch granuloma in het gelaat; therapie mit tortarus emeticus, Geneesk Tijdschr. v. Nederl. Indie-Diel **12**:58, 1918.

21. Lynch, K. M.: Tartar Emetic in Treatment of Granuloma Inguinale and Other Granulomata and Granulating Ulcers, South. M. J. **15**:688-692 (Sept.) 1922.

22. Gage, J. M.: Granuloma Inguinale, Arch. Derm. & Syph. **7**:303-325 (March) 1923.

23. Randall, A.; Small, J. C., and Belk, W. P.: Tropical Inguinal Granuloma in Eastern United States, J. Urol. **5**:539 (June) 1921.

man was negative. Intracutaneous inoculations of rabbits produced nodules, which healed spontaneously in a month or more.

Apparently, the consensus of opinion concerning the etiology has been expressed by Symmers and Frost:[15] "The evidence that inclusion bodies have a direct causative relationship to granuloma inguinale, however, appears not to have been definitely established."

Aragao and Vianna[4] deserve the credit of being the first to use tartar emetic in venereal granuloma. They also used vaccine but reported no results. DeSousa Aranjo[18] was the first to use the roentgen ray.

CLINICAL OBSERVATIONS

It has been our privilege to study seven cases of granuloma venereum from the service of Dr. Jerome Kingsbury, Dr. A. B. Cannon, and

Fig. 1 (case 1).—Inguinal lesion.

the late Dr. John A. Fordyce at the New York City Hospital. Contributions covering the studies made on the first three cases have been published.[24] As the investigation has proceeded, new facts have been learned, requiring some modification of our original conceptions. Since the first three of the cases have already been reported in detail, only brief mention will be made of them here.

REPORT OF CASES

CASE 1.—A negro, aged 52, admitted to the hospital, Nov. 5, 1924, had contracted the disease in Brazil twenty-five years previously. He presented a lesion in the left inguinal region, about 5 inches (12.7 cm.) long, and three

24. Cornwall, L. H., and Peck, S. M.: Etiology Granuloma Inguinale, Arch. Dermat. & Syph. **12**:613-628 (Nov.) 1925.

quarters of an inch (1.9 cm.) wide. This was excised under a local anesthetic, going wide of the lesion. The patient received no tartar emetic. Complete healing took place, and a year later there was no recurrence (figs. 1 and 2).

CASE 2.—A negro, aged 26, admitted to the hospital, Nov. 20, 1924, presented a lesion in the left inguinal region which apparently healed after long continued tartar emetic therapy. One year later there was a recurrence in the scar tissue.

CASE 3.—A negress, aged 21, born in New Jersey, admitted to the hospital, Dec. 5, 1924, who had never been outside of New York and New Jersey, presented a lesion involving the vulva and perineum, almost as far as the anus. The lesion had the typical features of venereal granuloma. She had had a positive Wassermann reaction five years previously, which became negative under antisyphilitic treatment. When she came under our observation, her serology was negative.[21] She was treated with a 1 per cent solution of tartar

Fig. 2 (case 1).—Site of lesion one year after excision.

emetic intravenously over a long period. The lesions were improving at the time she left the hospital.

CASE 4.—A negro, aged 30, born in Louisiana, who resided in New York City for the last fifteen years, admitted to the hospital, Dec. 9, 1924, several months before the onset of the present illness had spent about one month in Alabama. The history was negative for gonorrhea and syphilis. At the time of examination the Wassermann reaction was negative. The present lesions had been present for about six years. At the onset of his disease he was given arsphenamine and mercury with no beneficial effect; in fact, it was stated that the lesion steadily increased.

The patient presented (fig. 3) a linear granulating lesion, dry in some places, moist in others, extending along the left Poupart's ligament and in the fold between the thigh and scrotum. Small islands of epithelium were scattered throughout the lesion. The opposing surfaces of the left thigh and

scrotum were reddened and moist. There was a rather sharply circumscribed granulating lesion involving the anal opening, the anal wall, the perineal region, the opposing surfaces of scrotum and perineum, the intergluteal cleft and both gluteal regions. It was raised and covered with a thin, seropurulent exudate, having a sour, fetid odor. It bled easily when touched, and was firm in consistency and not tender. There was no redness or edema of the surrounding skin. The regional lymph nodes were not enlarged. The general physical examination was negative, except for a marked secondary anemia with a blood count of 2,300,000 red cells and 35 per cent hemoglobin.

This patient was treated intravenously with tartar emetic, starting with 1 cc. of a 1 per cent solution, and gradually increasing at each injection until 10 cc. was given every other day. Treatment was continued over a period of fifty-nine days; the patient was given a total of 5.15 Gm. of tartar emetic. The lesions healed gradually, but before healing was complete the patient insisted on leaving the hospital.

Fig. 3 (case 4).—Peri-anal extension of lesion.

Case 5.—A negro, aged 28, admitted to the hospital, Feb. 11, 1925, presented a lesion of nineteen months' duration on the penis. The lesion started as a small pimple at the root of the penis about three weeks after intercourse. In spite of local remedies it grew worse. He applied for treatment at Bellevue Hospital a month before admission to the City Hospital. His Wassermann reaction was found to be 3 plus at Bellevue Hospital, and he was given eight injections of arsphenamine and seven injections of mercury, with no effect on the lesion. Two injections of tartar emetic were given before the patient was transferred to the City Hospital. Therefore the diagnosis of granuloma venereum was probably made at that institution. This patient had been in New York for five years. He gave a history of chancroidal infection in 1920, and gonorrhea about the same time.

On admission (fig. 4), he presented a lesion at the root of the penis which completely encircled it and extended on the dorsum for a distance of 5 cm., forming there a large circular ulceration. It also involved the scrotum itself

for some distance. In the left lower scrotal region there was a smaller lesion. Unlike most granulomas, this lesion resembled a large ulceration, with indurated margins which were covered with epithelium. The base of the ulcer was clean and covered with granulations which bled easily. The ulceration was shallow, but the margins were raised, giving it an appearance of considerable depth. The lesion was well defined and had the characteristic odor. The penis was so swollen that it recalled elephantiasis.

This lesion was so atypical that the clinical diagnosis was malignancy or tuberculosis. A complicating factor in this case was the presence of palpable inguinal nodes. Smear, section, culture, allergic reactions, and complement fixation established granuloma venereum as the diagnosis.

The patient received vigorous tartar emetic therapy. He was treated every other day with intravenous injections of 5 cc. of a 1 per cent tartar emetic solution. The treatment was begun on February 20, and was continued for six months. During the first few months, the lesion healed up in a marvelous manner. Prior

Fig. 4 (case 5).—Large lesion at root of penis, with extensive edema.

to the institution of treatment, a lymph node in the right inguinal region had been excised to eliminate the possibility of malignant metastasis. Following this, while tartar emetic treatment was being given, a large globular swelling beneath the scar of the incision developed. The swelling continued to increase until the skin covering it became very thin, finally eroding in several places, and it soon assumed the aspect of a typical granuloma (fig. 5).

On June 20, the area in the right inguinal region was excised, and a piece of tissue 14 by 17 cm., including all tissues superficial to the muscle, was removed. The wound was thoroughly swabbed with phenol, followed by alcohol, and the usual wound dressing was applied.

A vaccine of the specific organism was made from cultures obtained from case 6. Under administration of this, healing took place in the incised area and in the lesion on the penis which had not healed completely under vigorous tartar emetic therapy.

CASE 6.—A negro, aged 22, admitted to the hospital, June 18, 1925, presented a number of lesions situated on the penis, and in the right and left inguinal regions, of five and one-half months' duration. The primary lesion was a small "pimple" adjacent to the urethral opening, which appeared three weeks after intercourse. In spite of local treatment, the lesion increased in size, and several new ones appeared in the vicinity of the first. He then noticed a lump in the right inguinal region. The skin over this became eroded and began to exudate a thin, watery discharge having the characteristic odor. The area was merely a superficial erosion, but gradually the margins became raised and indurated, giving the appearance of an excavation. Although he presented a large lesion in the left inguinal region, the patient was not aware of it. This is important in differentiation from bubo. There was a small nodule about 1 cm. from the lesion on the right side.

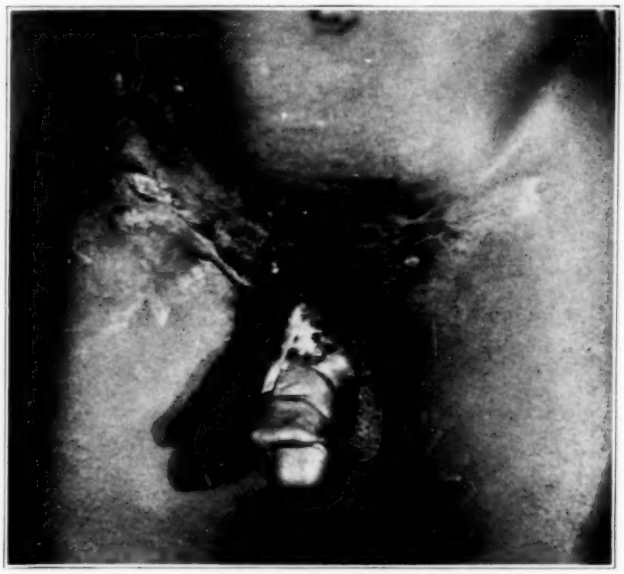

Fig. 5 (case 5).—Penile lesion healing; inguinal recurrence.

Before admission, he had received antisyphilitic treatment at other hospitals, consisting of twelve injections of arsphenamine and twelve of mercury. This did not affect the lesions. Cautery, iodoform, curettage and excision were tried, in the order given, with no effect. The past history was negative for syphilis, and the Wassermann reaction was negative on admission. The patient had had buboes two years previously. He had lived in New York for five years and prior to that in Boston.

The patient presented (fig. 6) six lesions, varying from 1 to 4 cm. in diameter. Three were situated close together on the head and corona of the penis; one was located at the base of the dorsum of the penis; and there was one in each inguinal region. They presented the typical clinical characteristics of granuloma venereum. The regional lymph nodes were not enlarged.

On July 2 and 6, the patient was given 5 cc. of 1 per cent tartar emetic intravenously. On July 8, 11 and 13, he was given subcutaneous injections

of autogenous vaccine. Six hours after the first injection of vaccine the patient's temperature rose to 100.5 F. In the next twenty-four hours the lesions began to dry up. The granulations approached the skin level, and the odor began to disappear. Two days after the last injection of vaccine (July 15) the lesions were greatly improved. This could scarcely be ascribed to the tartar emetic, because our previous experience had not shown that such a small amount of tartar emetic would produce the result observed.

Smear, section, culture, complement fixation and allergic reactions were confirmatory of granuloma venereum.

Case 7.—A negress, aged 21, admitted to the hospital, July 20, 1925, had been married for three years, and had had two healthy children, and no miscarriage. Her Wassermann reaction was negative on admission. Ever since the birth of her second baby, two years prior to examination, she had had a vaginal discharge. There was no dysuria, or polyuria, and smears were negative for gonococcus.

About three months before admission, she noticed a small "pimple" on the posterior fourchet near the labium major. An erosion formed, and the lesion

Fig. 6 (case 6).—Multiple lesions on penis and inguinal region.

began to exude a foul smelling, watery secretion. This was untreated, and it spread rapidly until a large portion of the left labium, contiguous portions of the right labium, and an isolated portion of the right minor labium were involved. The whole vulva then became edematous. The lesion itself was not painful at the beginning, but on account of constant friction it later became tender. She was admitted to the obstetrical service when eight months pregnant. This patient was born in Boston and had lived in New York City for three years.

Between the swollen labia majora there was a mass which had the appearance of a coxcomb. This proved to be a portion of the right minor labium. On separating the labia majora there was seen an oval lesion on the left labium major, which measured 5 by 3 cm. It narrowed down to a ribbon-like bridge which crossed the posterior fourchet and the right major labium. It spread out there into an elliptical lesion about one-half the size of that on the left side. Between the right major and minor labium there was another smaller lesion about 2 cm. in diameter, which appeared as an excavation because of

pressure exerted on it by the opposite labium. Both lesions presented the characteristics of venereal granuloma. The regional lymph nodes were not enlarged. Pure cultures could not be obtained in this case, and the complement fixation was negative.

Diagnosis was made on smear, section and allergic reactions. The patient is still under treatment.

CLINICAL CHARACTERISTICS

Little is definitely known about the incubation period. From the study of our cases, we believe that the onset is about three weeks after intercourse. The lesion begins as a papule and may be located on any portion of the genitalia or surrounding parts. In males, the penis and inguinal regions were favorite sites. In females, the lesion usually started on the fourchet or on the labia. The papule gradually increases in size and the skin over it becomes eroded. The resulting lesion may attain a large size. It becomes moist and exudes a milky, thin secretion that has characteristically a sour, fetid odor. This odor is diagnostic. The granuloma spreads in a serpiginous manner and may remain as a single lesion for months or years, healing at one portion, and spreading at another. Nodules often appear near the first lesion. These soon break down and frequently coalesce. Contiguous portions often become the seat of new foci. It may also be spread by auto-inoculation. The lesion has a well defined border that is raised, indurated and bluish white. The surface is covered with granulations that bleed easily. Usually, the granulations are raised, and only occasionally does one see an ulceration below the surface of the surrounding skin. If ulceration does occur, it is only superficial.

Ordinarily, the lesions themselves are not painful. However, through friction and edema of the affected parts, there is often great tenderness. The regional lymph nodes are not enlarged. The lesion is red, moist, and covered with a thin, characteristically smelling secretion which is not adherent. The granuloma stands out from the skin. Its surface is uneven and finely granular, with scattered hillocks rising above it. Some of the hillocks are covered at their summit with islands of bluish-white epithelium.

It has been said [25] that in old cases rectovaginal fistulas or strictures of the urethra may result, but we have observed no such complications in our series of cases. In many instances great edema of the penis or female genitalia may occur. This may be due to obstruction of the lymphatics. In one of our cases, section of a lymph node taken from the inguinal region showed the presence of the typical organisms.

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25. Daniels, C. W.: Granuloma, in Allbutt and Rolleston's System of Medicine, Pt. 2, **2**:708, 1907.

DIFFERENTIAL DIAGNOSIS

Venereal granuloma must be differentiated from skin tuberculosis, syphilis, chancroids, yaws, epithelioma and leishmaniasis of the skin.

Chancroids can be diagnosed by the presence, in many cases, of the Ducrey bacillus in smears and in sections from the lesions. Furthermore, in chancroids we have an ulceration, with real loss of tissue substance. The base of the ulcer is covered with a dirty, necrotic slough, and the draining nodes are always enlarged. Except for the so-called phagedenic chancroids, the lesions are of short duration.

Epithelioma and tuberculosis can be ruled out by tissue section. In yaws and in syphilis, we have a positive Wassermann reaction and a response to antisyphilitic treatment. The primary lesions of syphilis show *Spirochaeta pallida* by dark-field examination. Skin leishmaniasis is usually multiple in its distribution. The lesions are punched-out ulcerations which heal in time, and in the majority of cases smears show typical Leishman-Donovan bodies. They are known to be protozoan parasites belonging to the flagellates.

Positive diagnosis in granuloma venereum is based on: (1) the typical clinical appearance; (2) the characteristic odor; (3) the non-enlargement of the regional lymph nodes; (4) demonstration of the typical organisms in smears, sections, and cultures; (5) typical pathologic picture on section and (6) complement fixation and allergic reactions.

PATHOLOGY AND BACTERIOLOGY

The etiologic agent is a pleomorphic organism which assumes the form of a bacillus or a coccus. Its most typical form, however, is that of a bacillus from 1 to 6 microns in length, containing 1 to 3 inclusions which behave tinctorially like the nucleus of a cell. We have called the organism *Bacillus venereogranulomatis,* a new genus of the family *Bacteriaceae.*

Histologically, the granuloma is a chronic inflammatory process which develops in subcutaneous tissue, and consists partly of an infiltration of plasma cells and polymorphonuclears. The characteristic feature of the histopathology is a large swollen mononuclear cell, containing the specific organisms.

Lesions were produced in rabbits which clinically and (fig. 7) pathologically were analogous to the lesions of venereal granuloma in the human subjects.[24] Positive complement fixation was obtained in three of the four cases tried with an antigen prepared from the organism isolated from case 6.

ALLERGIC REACTIONS

Skin tests were tried both as a further proof of specificity and in the hope that a diagnostic test might be developed. A saline suspension

was made from a forty-eight hour culture of the organisms isolated from case 6. This was heated at 60 C. for two hours, and it was so diluted that 1 cc. contained 50,000,000 organisms.

The allergic reactions were tried in cases 2, 5, 6 and 7 (the patient in case 2 came under observation with a recurrence a year after he was

Fig. 7.—Granuloma venereum produced in rabbit's ear.

first treated). A wheal was produced in the flexor surface of the forearm by the intracutaneous injection of 0.2 cc. of the saline suspension made from case 6. In several hours, this was seen to increase from five to ten times in diameter. Around it was an area of erythema and swelling, which gradually faded into the surrounding skin. After from twenty-four to forty-eight hours the erythema subsided and at the

site of the wheal there remained in some of the cases a deeply reddened patch about 2 cm. in diameter, which persisted for from three to four days and left a residual brownish pigmentation. In each case, from six to twelve hours after injection there was a rise in temperature which varied in the different cases from 1 to 5 F.

We wish to caution future investigators that only that amount of suspension which fails to give a reaction in normal cases should be used in the diagnostic test. If larger amounts are used, confusing pseudoreactions will be obtained.

A small linear scratch was made through a drop of 0.4 per cent sodium hydroxide, just enough to draw serum but no blood. The end of a toothpick dipped in this suspension was thoroughly rubbed into the scratch. As a control, a similar scratch without the addition of suspension was made a short distance below. In a short time the scratch was surrounded by a variable narrow zone of edema and redness. At the end of twenty-four hours, this presented a hard elevation which lasted for several days and in some of the subjects left a residual pigmentation.

The allergic reactions were repeated on twelve normal persons. The wheal produced in each case by intracutaneous injection of 0.2 cc. of the foregoing suspension was completely absorbed in twenty-four hours. The scratch test also was negative. In none of the cases mentioned was there a rising temperature following injection during twenty-four hours of observation.

One patient (case 5) received six subcutaneous injections of vaccine prepared from the organism isolated from another patient (case 6). It was so diluted that each cubic centimeter contained 500,000,000 organisms. The first injection was given on July 7, 1925. The subsequent injections were given at three day intervals; 1 cc. was injected at each treatment. On July 22, six hours after the last injection, the patient experienced a severe chill, and his temperature rose to 104.5 F. The temperature persisted at its high level for three days. It then dropped to normal within a few hours. Coincident with the rise in temperature there was a tremendous focal reaction in the lesion. The penis swelled up to three times its normal size, and the lesion which had hitherto been covered with a firm, thin scar tissue became reinactivated, showing redness, a moist discharge and great tenderness. The patient experienced sharp pain, not only in the lesion itself, but in the site of a previous intracutaneous inoculation in the left groin. With the drop in temperature, the swelling in the penis promptly began to subside. Curiously enough, the site of the previous scar tissue now showed healthy granulations filling up the defect produced by the healing lesion.

This is not the only case in which we have seen focal reactions. Another patient (case 7) ran a temperature and complained of pain in

the lesion after each vaccine treatment, although there was little focal reaction, because as a precaution against it only small amounts of vaccine were used. Another patient (case 2) also experienced pain in the lesion after the skin test.

VACCINE TREATMENT

A vaccine was prepared from the organism isolated in case 6. Vaccine treatment was carried out in cases 5, 6 and 7. Patient 6 received three subcutaneous injections of vaccine on July 8, 11 and 13, the first two being 0.5 of 1 cc. of 250,000,000 per cubic centimeter, and the last 1 cc. containing 500,000,000 organisms. Although he was improving, this patient left the hospital without consent, and interrupted our observation. Although patient 5 had received vigorous tartar emetic therapy over a period of six months, the lesion on the penis had not completely healed, and he had developed a granulomatous lesion in the right inguinal region. The latter was excised. The patient was then given six subcutaneous injections of the vaccine, each cubic centimeter of which contained 500,000,000. The injections were given at three-day intervals, 1 cc. being used each time. While the lesion on the penis and the inguinal wound were responding very well to the treatment, the patient experienced a focal reaction in the penile lesion on July 22, with the resulting elevation of temperature and swelling described under allergic reactions. The patient was discharged from hospital on September 10, completely healed.

Another patient (case 7) received subcutaneous injections of vaccine containing 500,000,000 per cubic centimeter. She received four injections in all, beginning with 0.3 cc. and gradually increasing every three days until she received 0.6 cc. for her last injection. Because of our previous experience with case 5, small amounts were used. This case offered poor interpretation of the value of the vaccine because of the complicating pregnancy, with the resulting edema of the soft parts, and because of the constant leukorrheal discharge which kept up maceration and irritation of the surface of the lesion. We are fairly conservative in our statement, however, when we say that although no marked healing tendency was observed, yet there was no further extension. As the term of the pregnancy was approaching, tartar emetic therapy was inaugurated. Since there was albumin in the patient's urine, a small amount of tartar emetic, 3 cc. of a 1 per cent solution, followed in two days by a further dose of 3 cc., was given intravenously. To our surprise, the lesion showed marked improvement in the relatively short space of time. This is outside the usual experience with tartar emetic therapy, when improvement is noticeable only after a large amount is given over a relatively long period of time. What effect the previous vaccine treatment had on the remarkable response of the patient to tartar emetic is a matter for future investigation.

SUMMARY

1. Seven cases of granuloma venereum have been studied.

2. The diagnosis was made by the characteristic clinical appearance; demonstration of *Bacillus venereogranulomatis* in smear, section and culture; complement fixation and allergic skin reactions.

3. The best therapeutic results were obtained by the combined use of *Bacillus venereogranulomatis* vaccine, with tartar emetic.

LYMPHOSARCOMA

REPORT OF TWO CASES *

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Various types of skin lesions have been described in connection with the cutaneous leukemias. Of these, the lymphosarcoma of Kundrat-Paltauf is one of the more common. During the past two years, two cases have come under my observation which showed some points of interest. The first patient presented multiple tumors which histologically bore a definite resemblance to mycosis fungoides, although clinically the lesions were typical of lymphosarcoma. In the second case, the lesion was single, and resembled the Spiegler-Fendt sarcoid, although subsequent developments left no doubt that I was dealing with a case of lymphosarcoma.

REPORT OF CASES

CASE 1.—W. G., a man, aged 61, married, a clerical worker, had always enjoyed good health. Born in the United States, he married at an early age and had four children, all of whom were living and well. No member of the family had ever been afflicted with any skin disease of consequence or gave a history of malignancy.

About Christmas, 1922, the patient noticed a small nodule on his forehead in the right temporal region. It was painless, and he paid little attention to it until it had increased in size to the proportions of a pea, when he was treated with various applications by his family physician. The lesion remained quiescent for about ten months, during which time it was treated indifferently.

In the late fall of 1923, the lesion had apparently relapsed into activity, assuming gradually the size of a small hen's egg, with an accompanying discoloration of the skin, extending over the face and scalp. At the same time small nodules made their appearance in the skin of the chest and back. The appearance of these new lesions was accompanied by no subjective symptoms of consequence other than slight fatigue after moderate exertion, and loss of weight.

On May 26, 1924, I saw the patient for the first time. At that time he presented a tumor mass in the right temporal region about the size of a hen's egg, of bluish or dusky red hue, dotted with minute telangiectases, and of rather firm consistency. The cutaneous discoloration extended over his forehead, scalp and right side of his face, its borders, indefinite, fading with a mottled greenish-yellow hue into the normal skin, having the prima facie appearance of an exaggerated "black and blue mark" in the stage of resolution. On his scalp the skin was edematous, pitting on pressure; the hair was thin and lusterless. A firm

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nodule, the size of a robin's egg, could be felt over the right supra-orbital ridge. The right parotid gland was infiltrated and distinctly palpable. The right pre-auricular, posterior cervical and submaxillary glands on both sides were enlarged. The skin of his chest and shoulders was discolored by a bluish-red mottling, less pronounced than on his face and scalp, but particulary marked over several small

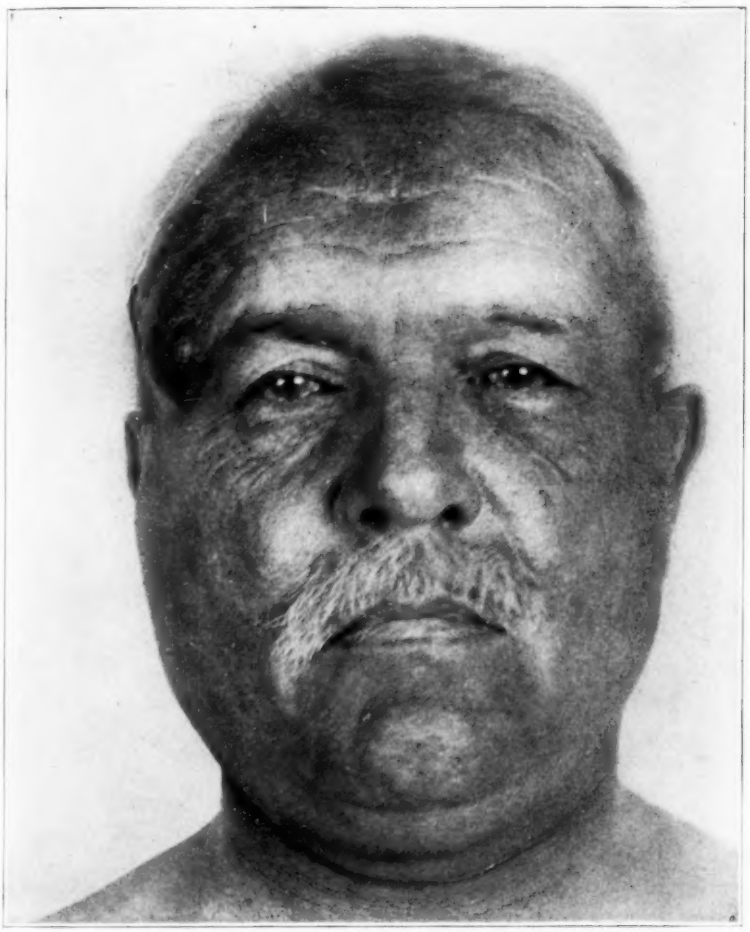

Fig 1 (Case 1).—Lesions in right temporal and supra-orbital region and enlargement of right parotid gland. This picture was taken one week after the first roentgen-ray treatment.

nodules which were palpable in the skin over the chest and back. These nodules were discrete, and numbered about a dozen, varying in size from an almost imperceptible mass to that of a large navy bean. They were of firm consistency, showed no tendency toward grouping, and on palpation apparently lay embedded in the corium and subcutis. Beneath the left nipple lay a tumor, more distinct and

more circumscribed than the others, about the size of an English walnut, firmly embedded in the skin of the areola. The axillary glands on the left side were palpable.

Histologic Examination.—Sections taken from the tumor on the right temple and from one of the nodules on the back were examined by Dr. Alexander

Fig. 2 (Case 1).—Discoloration of skin and multiple tumefactions over chest.

Fraser. The epidermis showed pressure atrophy. The corium and subcutis were densely infiltrated and replaced by anaplastic cells of the lymphocyte type, of irregular size, shape and staining qualities; but on the average corresponding to the large lymphocyte. Diagnosis: Large cell lymphosarcoma.

Treatment.—The lesions all responded promptly to filtered roentgen-ray therapy, a complete resolution occurring within three months.

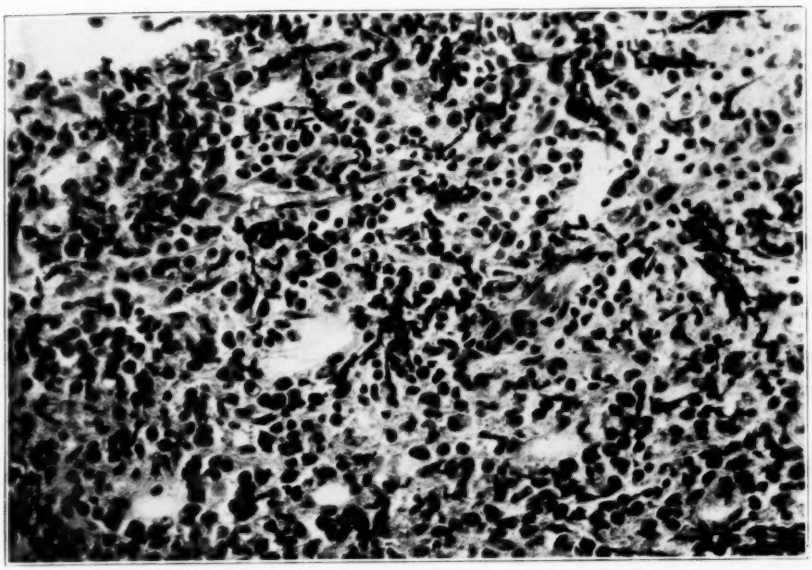

Fig. 3 (Case 1).—High-power magnification of lesion in right temporal region.

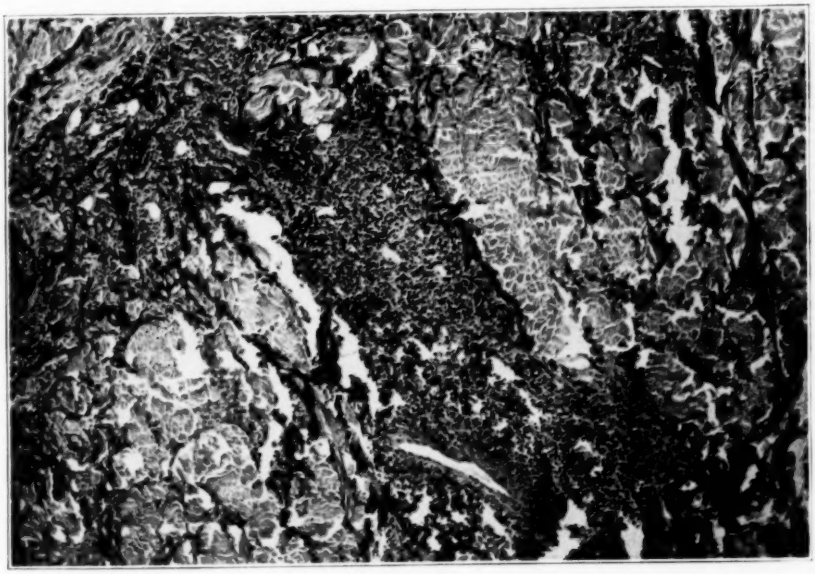

Fig. 4 (Case 1).—Low-power magnification of lesion in right temporal region.

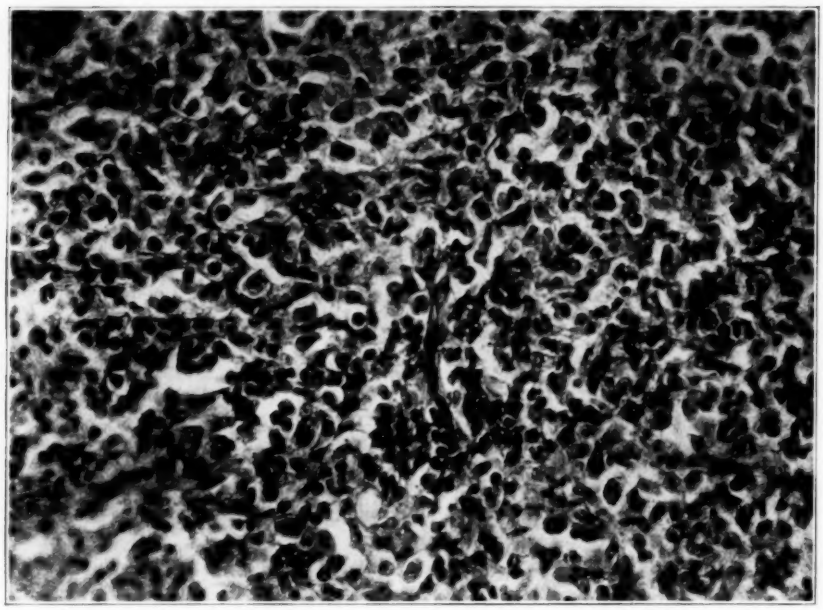

Fig. 5 (Case 2).—High-power magnification of lesion on right cheek.

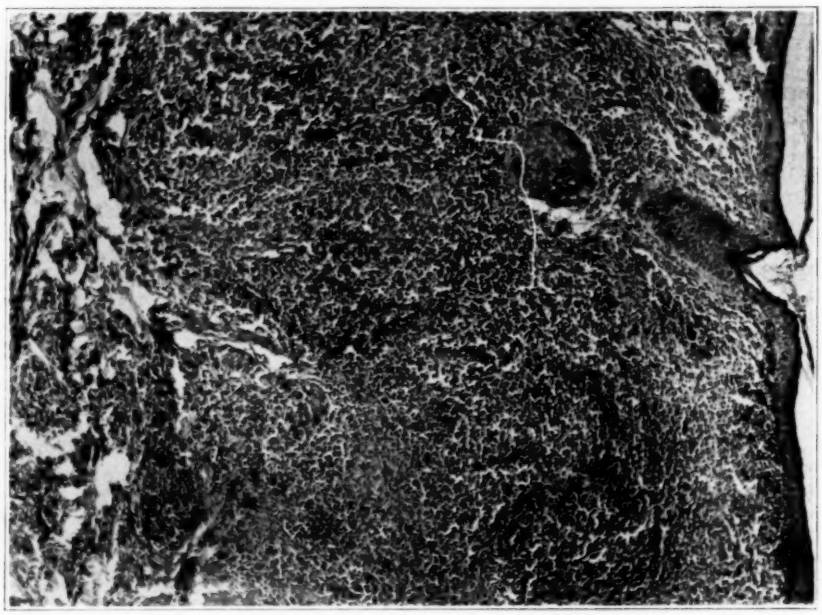

Fig. 6 (Case 2).—Low-power magnification of lesion on right cheek.

Subsequent History.—About October 1 of the same year, the patient began to complain of increasing weakness and dyspnea. Physical examination of his chest revealed enlargement of the mediastinal and peribronchial lymph glands. The heart was pushed to the left and downward. The pulse was slightly accelerated in rate and very irregular. Deep roentgen-ray therapy brought about no improvement, and the patient died from acute cardiac insufficiency on November 16.

CASE 2.—J. L., a man, aged 58, born in Scotland, married, a gardener, had one child living and well. He had always enjoyed good health, except for yearly attacks of bronchitis and occasional gastric trouble. He had never to his recollection had any skin disease of consequence, nor was there any family evidence of malignancy.

He gave a history of a flat nodule appearing about six months previously on his right cheek over the malar bone. It was painless and increased slowly in size. I first saw him at my office in the early fall of 1922. At that time, he presented an indurated plaque about 1½ inches (3.8 cm.) in length and three-fourths inch (19.05 mm.) wide, protruding slightly above the skin surface on his right cheek. The lesion lay with its long axis across the cheek, its upper margin being about three-fourths inch below the margin of the lower lid, and its inner margin extending nearly to the side of the nose. It was a brownish red or brownish color, glossy, and on closer examination was studded peripherally with minute telangiectases and enlarged venules. On palpation, the lesion was firm, but elastic, and was intimately associated with the skin, its margins interrupted abruptly by normal tissue.

I took the patient to the University Clinic for further study. The blood picture was normal except for a slight secondary anemia. The urine showed a faint trace of albumin and a slight increase in indican. A diagnosis of sarcoid of the Spiegler-Fendt type was made and subsequently a biopsy was performed.

Histologic Examination.—The principal histologic feature was a diffuse infiltration located in the corium, which almost entirely replaced the same and encroached on the epidermis so as practically to obliterate the pegs and leave the epidermis as a thin narrow rim with an occasional plugged hair follicle. This infiltration was diffuse and was made up of cells of the large lymphocyte variety with numerous mitotic figures in a dense reticulum. No giant cells were found. Diagnosis: Histologically a similar picture has been found in cases of mycosis fungoides and lymphosarcoma. This picture would probably correspond with the histologic picture described for sarcoid of the Spiegler-Fendt type. The case was presented as such at the New York Dermatological Society, Nov. 28, 1922, by my associate, the late Dr. William B. Trimble. In the discussion, Drs. Highman and Fordyce favored lymphosarcoma as a diagnosis, based on the biopsy report.

Treatment and Course.—The patient was given solution of potassium arsenite (Fowler's solution) internally, which acted favorably on the lesion, causing it to shrink to nearly half its original size within several weeks. This naturally strengthened the evidence in favor of sarcoid as a diagnosis. However, on examination, Jan. 9, 1923, the patient complained of tenderness and swelling in the region of the right preauricular lymph node. He also had suffusion of the conjunctiva of the right eye of a week's duration, associated with a seropurulent discharge. On examination by an oculist, he was recommended for admission to the hospital. Later a diagnosis of lymphosarcoma of the eyeball was made, and the contents of the orbital fossa removed. Diagnosis was confirmed by biopsy. The patient died shortly afterward.

CONCLUSION

These cases are of interest primarily in their demonstration of the similarity histologically between lymphosarcoma and sarcoid of the Spiegler-Fendt type. It is of further interest to see the prompt response of the tumors in the first case to the roentgen ray, and the apparent improvement in the second case following arsenic internally.

I am indebted to my associate, the late Dr. William B. Trimble, for his assistance in the study of the cases and to Drs. Charles G. Darlington and Alexander Fraser for the histologic reports.

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LYMPHOGRANULOMATOSIS INGUINALIS *

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The presence of lymphatic gland inflammation, especially in the groins, is usually the result of venereal disease, syphilis, chancroid or gonorrhea. Occasionally, it is the result of balanoposthitis, herpes or local pyogenic infections. In other cases lymphatic masses are caused by a systemic process like Hodgkin's disease, leukemia, etc., by malignant growths or by infectious diseases like bubonic plague.

As a rule it is relatively easy to diagnose the cause of a lymphatic enlargement, but for many years certain cases of adenitis have been puzzling to the medical profession. As early as 1859 and 1865, Chassaignac [1] and Velpau,[2] French surgeons, described cases of lymphatic masses of the groins of peculiar character. Nélaton,[3] Hardy [4] and other physicians of the second half of the nineteenth century also reported cases of acute or subacute inflammation of the lymphatic glands of the groin with the peculiar pathologic characteristic of intraganglionar abscess formation.

Students and workers in tropical pathology as early as 1894-1896 described a disease the principal symptom of which was lymphatic inflammation of the glands of the groins associated with fever, running an acute course. This disease was thought to be due to climatic influences, and it was consequently named "climatic bubo." Brault [5] of Algiers, Ruge and Goding [5] and later many others confirmed the existence of this clinical entity, and all books on tropical diseases devoted a chapter to climatic bubo.

Lejars,[6] in 1894, reported cases of similar conditions under the name of "strumous buboes of the groins," and for some years isolated

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* Read at the Forty-Eighth Annual Meeting of the American Dermatological Association, Washington, D. C., May, 1925.

1. Chassaignac, E.: Traité pratique de la suppuration et du drainage chirurgical, 1859, p. 354.

2. Velpeau: Adenitis, Dictionnaire de medicine de Dechambre **1,** 1865.

3. Nélaton, A.: De l'adenite subaigue a foyers purulents intraganglionnaires, Semaine méd., 1890, p. 402.

4. Hardy, L.: De l'adenite subaigue simple de l'aine á foyers purulents intraganglionnaires, Thèse de Paris, 1894.

5. Quoted by Castellani and Chalmers: Manual of Tropical Medicine, 1919, p. 1961.

6. Lejars, Felix: Le boubon strumeux de l'aine, Presse méd., 1894, p. 788.

reports of a similar nature appeared in the literature. Hoffmann,[7] who has had a great deal of experience in tropical diseases in the far east, reported ten cases of climatic bubo studied by him in China in 1913. In all his cases, the most painstaking bacteriologic, histologic and biologic investigations failed to explain the etiology of this peculiar disease of the lymphatic glands.

In January, 1913, Nicolas, Durand and Favré[8] published a report concerning a series of cases of lymphatic enlargement of the groins which they named "lymphogranulomatosis inguinalis."

In 1921, Bory,[9] in a series of articles concerning similar conditions, made a complete report on the pathology of the glands affected and proposed the name of "ulcère simple adenogène des parties génitales."

The importance of these cases was not fully realized until 1922, when Nicolas and Favré[10] presented before the First Congress of French Speaking Dermatologists an exhaustive study of the condition under the name "lymphogranulomatosis inguinalis subaigue." Since then scores of reports and studies have been produced in Europe, especially in France and Italy.

During the last three years the most important contributions have been those of Cappelli,[11] Ravaut, Boulin and Rabeau,[12] Teissier, Gastinel and Reilly,[13] Carlo Gamma[14] and the most recent study of Ravaut, Boulin and Rabeau[11] in which they suggest the rather long and awkward name of "paradeno-lymphite suppurée benigne a forme sépticemique."

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7. Hoffmann, W. H.: Linfogranulomatosis Venerea y Bubón Climático, Rev. méd. Hamburgo **3**:323, 1922; also personal communications.

8. Nicolas, Durand and Favré: Lymphogranulomatose inguinal subaigue, Soc. méd. Hôp., Jan. 31, 1913.

9. Bory, quoted by Ravaut, Boulin and Rabeau: Ann. dermat. et syph. **5**:463, 1924.

10. Nicolas and Favré: Le lymphogranulomatose inguinale subaigue, Premier Congres de Dermatologistes de Langue Francaise, Paris, Masson et Cie.

11. Cappelli, Jader: Sulla Lymphogranulomatosis Inguinale Subacuta di Nicolas e Favré, Gior. ital. d. mal. ven., February, 1924, p. 3.

12. Ravaut, Boulin and Rabeau: Etude sur la poradéno-lymphite ou poradéno-lymphite suppurée benigne a forme septicemique, ou lymphogranulomatose inguinale subaigue de Nicolas et Favré, Ann. dermat. et syph., August-September, 1924, p. 463.

13. Teissier, Gastinel and Reilly: A propos des polyadénopathies inguinalis subaigues designées sous le nom de lymphogranulomatose, Premier Congres de Dermatologistes de Langue Francaise, June, 1922, Paris, Masson et Cie.

14. Gamma, Carlo: Una Nueva Entidad Nosológica, la Linfogranulomatosis Inguinal Subaguda, Rev. med. Sevilla, July, 1924, p. 30; Sull 'Etiologia del Linfogranuloma Inguinale, abstr., Gior. ital. mal. ven., December, 1924, p. 1858.

CLINICAL STUDY

The Initial Lesion.—According to all appearances, lymphogranulomatosis inguinalis is a contagious disease transmitted by sexual intercourse. The first symptom of the disease is a small ulceration, a papule or a herpes-like lesion of the genitals, usually situated on the glans penis or the prepuce in the male or the vulvae in the female.

This initial lesion is nearly always single, small, slightly inflammatory, nonindurated, clean and painless, and discharges a small amount of serous fluid. It heals quickly without treatment and disappears in a few days, leaving no trace.

Three types of initial lesion are described: a papular type in the form of a small infiltration varying in size from that of a pinhead to that of a lentil; an erosive form, oval or round, with well marginated borders and clean, pink floor, and a vesicular form resembling herpes lesions. One seldom sees the initial lesion, because it produces no pain or discomfort, and it heals up so rapidly that often the patient fails to notice it or disregards it. When medical advice is sought for the further manifestations of the disease, the genital sore has disappeared, leaving no trace.

In the three cases that I observed only one presented the initial lesion of the erosive type, which was rather slow in healing, owing to its situation in the frenum where it was subject to traumatism when the prepuce was drawn back. In some cases the genital lesion may resemble a syphilitic chancre as in my case, but in the majority of cases it is much more superficial. In Cappelli's five cases, three patients gave a history of a genital lesion and two said that they had not had a genital lesion.

In the twenty-three cases reported by Ravaut, Boulin and Rabeau, only sixteen patients presented or gave a history of the initial lesion.

In males the initial lesion is always found in the prepuce or near the corona of the glans penis; in females the most frequent location is the fourchet. Extragenital lesions are sometimes found, especially in the tonsils, with the corresponding lymphatic infection in the neck.

The incubation period varies between one and six weeks. In most cases, the time elapsed between the suspected coitus and the appearance of the genital sore has been three weeks.

Adenitis.—After the appearance of the genital sore there is a period of calm, which, as in syphilis, might be called a period of second incubation, during which the genital lesion is the only manifestation of the disease. This second incubation lasts an average of two weeks.

Then the corresponding lymphatic glands begin to enlarge. The adenitis is painful from the beginning; the inflammatory process progresses until several glands are included. At first individually

isolated, hard, painful and rolling under the skin, they soon become fixed, and the rapidly spreading periadenitis unites the glands in a common mass. Usually the glands of one side are affected, but occasionally the condition is bilateral. Above and behind Poupart's ligament, a hard, painful mass may be felt in practically every case. This iliac adenopathy is one of the most constant characteristics of the disease. The rest of the lymphatic system may respond to the general infection in these cases, and small, filbert sized, painless glands may be felt in the axillae and neck. When the portal of infection is the throat, the glands of the neck on one or both sides bear the brunt of the infection. These cases are rare.

The lymphatic inflammatory mass runs its course in from one to several months. During this time the periadenitis increases, and finally the ganglionic mass adheres to the skin, which becomes reddened and edematous, and a slight fluctuation appears at one or more points of the surface. After a few days the skin breaks down, a small amount of seropurulent fluid discharges, and a sinus is formed, from which exudes a yellowish liquid; the patient, who had been unable to walk or even to move his limb, is suddenly relieved. Gradually the iliac and other glands become smaller, less painful, and finally disappear without suppuration.

For several weeks or months there is a boggy, soft, oozing mass, from which the open sinuses discharge a serous fluid and then heal, leaving thick, puckered, retracted scars. The process is sometimes slow, requiring several months or even a year before finally healing.

My three cases were cases of unilateral, inguinal adenitis, one of the left side and two of the right side. Of Ravaut, Boulin and Rabeau's cases, nine were cases of right inguinal adenitis, six of left inguinal adenitis; in seven, both groins were affected, and in only one patient, a woman, the condition was situated in the neck.

Constitutional Symptoms.—During the periods of incubation, chancre, and second incubation, there are no constitutional symptoms. As soon as the inguinal glands begin to enlarge, the patient complains of general malaise, ineptitude for work and pleasure, and slight fever. The temperature increases slowly, becoming lower in the morning and rising in the evening, when it may be as high as 41 C. (105.8 F.). The patient becomes weak, stuporous and delirious; the face appears flushed, and the mucous membranes dry and covered with a grayish film. The pulse is slow, rarely above 90, even with the highest temperatures. The clinical picture is that of septicemia.

On examination, besides the inguinal adenitis and periadenitis described, the following symptoms are noticed:

The skin presents no rash or abnormal color except the flushing of the face. The pupils are normal and react to light and in accommoda-

tion. Knee and superficial reflexes are normal. The only abnormality presented by the nervous system is mental stupor and dulness.

The mouth is dry, and anorexia is present, the patient refusing even liquid food. The abdomen is scaphoid and soft; there is a marked gurgling sound on the right iliac fossa. The liver and spleen may be slightly enlarged.

The respiratory apparatus is normal. The urine may contain a trace of albumin.

In some cases blood examinations reveal a marked increase of white cells and slight anemia; in other cases the cell count may be normal or, as in my Case 1, there may be leukopenia. Some authors have noticed an increase of mononuclears, which I did not find in my cases. Blood cultures are negative. The Widal test also is negative.

BACTERIOLOGY

In all cases reported no micro-organisms were discovered in the initial lesion or in the glands. The small amount of pus obtained aseptically in my Case 1 showed no germs. Cultures made in broth, agar, blood agar and gelatin were all negative. Peritoneal inoculation into a guinea-pig was also negative.

In some cases reported in France, motile organisms resembling amebas have been found in the secretion of the sinuses, but the pathogenic properties of these amebas have not been proved.

REPORT OF CASES

CASE 1.—G. P., aged 21, white, unmarried, a medical student, consulted me on April 1, 1924, for a small erosive lesion on the frenum of the prepuce, which he had noticed the day before. He had had sexual intercourse frequently during the previous weeks, and the source of contagion was unknown. The lesion on the penis measured about 10 by 2 mm., and was situated lengthwise on the frenum. It was elongated and extended from the insertion of the frenum in the glans penis to the free edge of the prepuce. The borders were clean cut and slightly elevated; the floor of the ulceration was clean, red and shiny. Induration was absent when the lesion was taken between the fingers in its transverse diameter, but a certain hardness and infiltration was felt when the whole frenum was taken in its longitudinal diameter. Dark-field examination for spirochetes was negative on April 1, 2 and 3. On April 3, the patient received 0.3 gm. of neo-arsphenamin, and on April 8, he received 0.45 gm. The genital lesion remained unimproved. On April 12, the patient complained of slight pain in the left groin and fever, the temperature reaching 38 C. (100.4 F.) that night. On examination there was an enlarged lymph gland, about the size of a filbert, painful on pressure, movable under the skin and without signs of acute inflammation.

From April 12 until April 15, the temperature continued rising, with morning remissions to 37 C. (98.6 F.), a rise in the evening to 40.5 C. (104.9 F.).

On April 16, a second enlarged lymphatic gland was seen on the outer side. The patient complained of pain in the left iliac fossae.

The fever continued in the same remittent form. The patient was stuporous and unable to arise owing to the general weakness and pain in the groin and iliac fossa.

Urinalysis was normal.

On April 18, the lymphatic glands in the left groin were much larger and surrounded by marked peripheral inflammation. This periadenitis involved the tissues of the groin, fixing the glands and giving a sensation of resistance and edema. A third gland was noticed in this mass above the other two. The glands were no longer movable and were very painful. The temperature remained unchanged. The Widal test was negative. Pain in the left iliac fossa increased. The blood count was: red cells, 4,350,000; white cells, 4,812; hemoglobin, 80 per cent.; lymphocytes, 23 per cent.; mononuclears, 7 per cent.; transitionals, 1 per cent.; polymorphonuclears, 68 per cent.; eosinophils, 1 per cent.

On April 23, the infiltration in the left groin was more pronounced, the mass was very painful, and on examination no individual glands could be discerned. The skin was reddish, edematous and attached to the subjacent tissues. The pain in the left iliac fossa was unchanged, and a great hard mass could be felt on palpation just above and behind Poupart's ligament, formed by three or four enlarged glands. This explained the pain in this location which had been present for several days.

On April 26, the lymphatic mass of the groin was soft, deep red and presented fluctuation in the center. The lesion on the penis had healed under local dressings of sterilized water. The temperature was lower, rising to only 38 C. (100.4 F.) in the evening. The patient was fully conscious and feeling better.

The blood count on this day was: red cells, 4,050,000; white cells, 6,250; hemoglobin, 80 per cent.; lymphocytes, 23 per cent.; mononuclears, 7 per cent.; transitionals, 2 per cent.; polymorphonuclears, 67 per cent.; eosinophils, 2 per cent.

On May 1, the temperature was lower, becoming normal in the morning, with a slight rise in the evening. An incision was made in the fluctuating center of the ganglionic mass, under strictly aseptic conditions. About a teaspoonful of yellowish pus was obtained, with which inoculations were made into a guinea-pig, and cultures were taken in several culture mediums. Smears of the pus showed only polynuclear leukocytes.

On May 5, the temperature was normal; the iliac mass was smaller and less painful. The inguinal wound was clean, a considerable amount of lymph having exuded during the night, soaking the dressing.

On May 20, the iliac glands could not be palpated. There was a lymph discharging sinus in the left groin. This sinus persisted for five months, finally healing and leaving a retracted scar. The patient refused a biopsy.

One June 15, the cultures remained negative. The inoculated guinea-pig was normal.

CASE 2.—J. H., aged 17, colored, an office clerk, Cuban, came to the outpatient department of the municipal hospital on July 8, 1924, stating that six weeks before he had had to go to bed, and had had high temperature and pain in the right groin. Three days later he had noticed a tumor in the right inguinal region which swelled gradually and finally broke down at two points, discharging a small amount of pus. Fever was present for three weeks, gradually returning to normal.

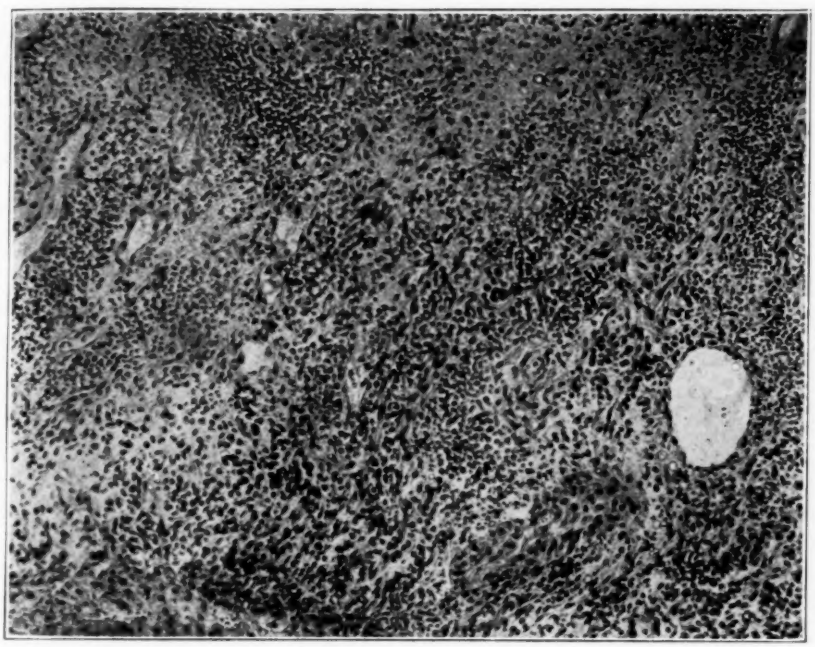
On examination the patient presented a diffuse infiltration of the right groin, and two sinuses with a scant serous discharge. Deep in the iliac fossae a

ganglionic mass was felt, which was very painful on pressure. No history of a genital lesion could be obtained. Examination of the discharge failed to show micro-organisms or amebas.

The inguinal mass was removed under anesthesia by Dr. G. Pedroso, hospital surgeon, and sections were made.

CASE 3.—R. H., aged 23, white, Cuban, unmarried, a bookkeeper, came to the outpatient department of the municipal hospital in August, 1924, with a history of fever for the previous three weeks and swollen and painful masses in the right groin.

On examination a mass formed by four or five lymph glands was observed in the right groin with three discharging sinuses. In the left groin there was



General plasma-cell infiltration, accumulations of polynuclear cells and epithelioid cells.

a mass formed by several small glands, but there was no inflammation or pain on pressure. Over and behind Poupart's ligament on the right side, a painful mass could be felt. The patient was very weak and wasted, having lost 25 pounds (11.3 kg.) during the three weeks of confinement. No history of genital sore could be obtained.

The patient refused surgical intervention and passed from further observation.

PATHOLOGY

The glands removed in Case 2 were enlarged, red and surrounded by thickened cellular tissue. On section, small grayish points could be seen in the parenchyma of the glands. A total of eight glands was removed from the groin.

Sections were stained with hematoxylin-eosin. With small magnification the capsule could be seen thickened and irregularly studded with foci of cellular infiltrations. The parenchyma of the gland was the site of a thick cellular infiltration, and in places there was marked tissue destruction and areas of necrosis.

With great magnification the infiltration was seen to be formed of plasma cells and polymorphonuclear leukocytes especially abundant toward the necrosed points at which there were cellular masses of pure polymorphonuclears, surrounded by foci of epithelioid cells. No chorioplaques or giant cells were seen.

In short, the pathologic picture was that of an infectious granuloma with abscess formation in its mass.

DIFFERENTIAL DIAGNOSIS

Syphilis and adenitis of inflammatory origin may be eliminated on account of the symptomatology, bacteriology and pathology of the condition.

Pestis minor, a form of bubonic plague which occurs in some places where the disease is endemic or at the beginning and end of epidemics also may be ruled out. *Bacillus pestis* is never found in the glands, and inoculations in guinea-pigs are negative.

The most important differential diagnosis is climatic bubo. According to some investigators, lymphogranulomatosis inguinalis and climatic bubo are one disease, imported into France by the colonial troops during the World War. Hoffmann [7] is of this opinion.

Milian [15] believes that lymphogranulomatosis inguinalis is in reality an evanescent soft chancre with acute bubo. Pautrier [16] refutes this opinion on the grounds that the condition is not produced by Ducrey's bacillus, that pathologically there is a granuloma, and that clinically there are symptoms of a general infection which are never present in soft chancre.

Phylaclos [17] identifies climatic bubo and lymphogranulomatosis inguinalis as the same disease.

Favré, quoted by Phylaclos, seems to favor the opinion that lymphogranulomatosis and climatic bubo are one condition. Pautrier, Rietman and Hababou [18] have reported a case in which a nocardia was found. This fungus did not have pathogenic properties.

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15. Milian: Bull. Soc. franç. dermat., July, 1924, p. 44.

16. Pautrier: Bull. Soc. franç. dermat., July, 1924.

17. Phylaclos: Abstr., Ann de dermat. et syph., March, 1924, p. 191.

18. Pautrier, Rietman and Hababou: Bull. Soc. franç. dermat., July, 1924. p. 133.

TREATMENT

Before suppuration and the formation of sinuses, radiotherapy may be tried. After the glands have broken down and one or several sinuses have formed, the best treatment is surgical removal. If no treatment is given, the sinuses finally heal after several months, but relapses are common, new sinuses forming near the old healed ones.

Intravenous injections of Lugol's solution have been used with good results in some cases. According to Pautrier, this would point to the mycotic character of the infection.

Injections of emetin have given good results, especially when there were amebas in the discharge.

In my cases surgical treatment was used.

SUMMARY

Lymphogranulomatosis inguinalis, also known under the names adenogenous venereal ulcer and poradenolymphitis apparently is an infectious and contagious disorder of venereal origin, which produces septicemic symptoms and local manifestations characterized by a genital chancre and adenitis of the groins. The lesions are sometimes extragenital.

Pathologically the condition is an infectious granuloma with intraganglionic abscess formation of the miliary type.

The etiology of the condition is unknown. Amebas have been found in the pus in some cases. In one case a fungus of the genus nocardia was isolated. These amebas or the fungus has not been proved pathogenic.

The condition must be differentiated from syphilis, chancroid, bubonic plague and inflammatory adenitis.

Whether lymphogranulomatosis inguinalis is a new clinical entity or is the same disease known for years under the name of climatic bubo, is yet to be determined. Students and investigators of tropical pathology in the near east and in Asia, where climatic bubo is fairly common, feel inclined to believe that the two conditions are identical.

Three cases of this disease are reported.

Consulado 7.

DISCUSSION

DR. AUGUSTUS RAVOGLI, Cincinnati: I have seen such cases for years under the name of phagedena. When Nicholas presented his observations, he established a fourth veneral disease which has been called lymphogranulomatosis inguinalis. The characteristic lesion is a small one which appears on the genitals and immediately infects the lymphatic glands, forming a triangle at both inguinal regions. We must not believe that these lesions are confined to the genitals, for I have seen a case in which the lesions extended down the leg to the knee.

I agree with Dr. Pardo-Castello that we often have nothing definite in the etiology. I have treated these patients with the roentgen ray, mercury and bismuth, but nothing has been effective. It has been claimed that treatment with antimony is of value, but I have had no experience with that.

Dr. Harold N. Cole, Cleveland: I was much interested in the paper by Dr. Pardo-Castello and would like to have it made clear how we are to differentiate between this condition and granuloma inguinale, which we see so often in our country, particularly in the negro. They have genital lesions which are ulcerative and granulomatous, possibly a little more chronic in type, and later there is involvement of the glands in the groin. The glands are swollen and finally break down and form a granulomatous ulcer, which remains for some time. These cases respond more or less well to tartar emetic. The patients also have some general symptoms in many instances. In these conditions the two names are almost similar, as are the symptoms, and I wonder whether it is possible that they are the same disease.

Dr. John A. Fordyce, New York: I think the important point in the diagnosis is the presence of the Donovan organisms in granuloma inguinale and the absence of the organisms in this disease. We see many cases of granuloma inguinale in the clinic, and I recently saw a case in which the ulcer had been present for four months.

Dr. Henry H. Hazen, Washington, D. C.: The relationship of leishmaniasis to granuloma inguinale is a subject of considerable interest. The former is due to Leishman-Donovan bodies, which are believed to be animal parasites. In many cases of the latter an encapsulated bacteria, similar to the Friedländer organism, has been described. However, when one examines smears from the two diseases, organisms that are similar to the eye can be seen, and both of these diseases are curable when large doses of tartar emetic are used from the onset, care being taken to avoid ringing in the ears. There is a question in the minds of many observers whether the two diseases are not one and the same.

Dr. C. Guy Lane, Boston: We have at present at the Massachusetts General Hospital a young colored student in whose case we have not been able to make a positive diagnosis of granuloma inguinale by smears, although suggestive organisms have been found. The case has been seen by Professor Strong of the School of Tropical Medicine, and he has confirmed our diagnosis of lymphogranulomatosis inguinale.

I wish to call attention to a little different treatment which we have been using. At first we gave the patient ten injections of tartar emetic in about twenty days. He experienced some joint pains, the white cells in the urine increased, and there was some increase in the red blood cells in the urine. In view of these facts we felt that it was wise to give up this treatment, and at the suggestion of Dr. Strong we used a 15 per cent. salicylic acid in creosote for local application, which seemed to start the healing process. In addition, Dr. Strong suggested the use of a new antimony preparation—antimony thioglycollamid. The patient has now received six intravenous injections of this preparation (from 0.05 to 0.1 gm.) in a period of thirty days. There has been marked healing of the ulcer in that time and no evidence of irritation.

Dr. Pardo-Castello, Havana: I am sorry that there has been some confusion about the condition that I have described and granuloma pudenda. There is no more resemblance between them than there is between a plantar wart and lichen planus. They are absolutely different from the clinical as well

as from the histologic point of view. Lymphogranulomatosis inguinalis is a disease of the lymphatic glands which never presents ulceration or fungating masses.

In the treatment of granuloma pudenda I should like to remind you of a little detail which I think is of great value in using tartar emetic. According to the Brazilian dermatologists, tartar emetic should never be sterilized by heat, but by filtration through a Chamberlain bougie. When the solution is prepared in this way we get astonishingly good results, and probably some of the failures reported are due to the heat used in sterilizing the tartar emetic solution.

THE FOX-FORDYCE SYNDROME *

HERMAN GOODMAN, B.S., M.D.
NEW YORK

HISTORY

The clinical and histologic reports of this disease, which received the eponym of Fox-Fordyce disease, were published in 1902. The title of the contribution was "Two Cases of a Rare Papular Disease Affecting the Axillary Region." Fox gave the particulars regarding a woman patient who presented an intensely itching eruption confined mainly to the axillary regions, which had been present a year or more. The patient was thin and neurotic. The lesions were smooth, papular, numerous, firm and rounded. The skin was deeply infiltrated and slightly fissured. The color was normal. Treatment of the ordinary kind was fruitless. After eleven months in the hospital, the patient was discharged unimproved.

Fox briefly mentioned one other patient, but no other details are given than these: This occurred in a young man who was extremely neurotic, and who suffered much from the intense pruritus. As in the case reported above, the eruption consisted of small rounded, aggregated and almost colorless papules. It was confined to the axillary region, and resisted the ordinary methods of treatment.

The late Professor Fordyce gave the histologic report of the tissue removed from a Russian woman, aged 28 and unmarried. He reported: (1) hyperkeratosis of the sweat duct orifices, their intra-epidermic portions, and the orifices of the hair follicles; (2) mechanical dilation of the coil glands, which results in changes in their epithelial lining; (3) acanthosis surrounding the altered sweat ducts and hair follicles; (4) inflammatory changes of a more or less chronic character in the derma.

REVIEW OF THE LITERATURE

It was not until 1908 that another example of this unusual type of case was reported, and since that time other investigators have added to the literature of this affliction. I have been able to find reports or mention of sixty-four cases as published or shown.

The clinical features have had a monotony of repetition of the clinical report of Fox; and the histology from its pathologic anatomy has had little added. On the whole, the lesions are conical, semiglobular or dome shaped. The size varies from that of a pinhead to that of a

* Old diseases get new faces due to research. This is the excuse for reviewing the subject of Fox-Fordyce disease.

pea. Flat lesions have been reported but twice. On the mons veneris the lesions may be larger than elsewhere. The range of color has been from normal to paler than normal, red, pale red, yellowish red, reddish, brown, brownish and granite-like. The color of the surrounding skin has been normal. The texture of the surrounding skin has been lichenified, infiltrated and normal. The papules were aggregated but once. Central cores were found by a number of observers. The papules have always been solid and firm. They did not disappear on pressure nor exude fluid on puncture.

The space limitations have been constant: the axillae, areolae of the nipples, pubic region, external genitalia, inner side of thighs, and perineum. Various parts of the individual may be affected at the same

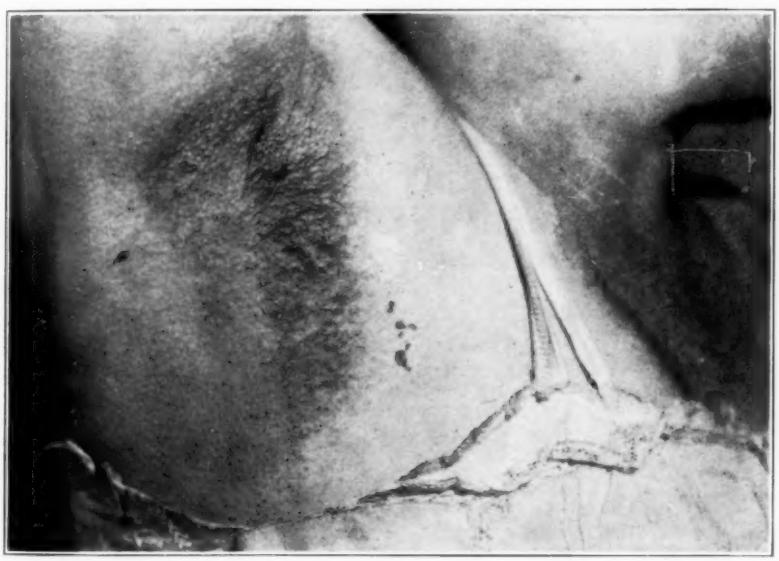

Fig. 1.—Eruption in right axillary region.

time, or one part may follow another with an interval of from four to six months between. It is not agreed whether the itching or the papules appear first.

The pruritus is usually intense. It may be spasmodic. It may appear only at night, and cause the patient to have sleepless nights. Menstruation, pregnancy, mental agitation, change in the weather, new occupation and other features may cause an exacerbation of the itching.

There is but one published case in a male patient (that of the original report). One other case was reported at the January meeting of the New York Academy of Medicine by Traub. I saw this boy several times, and I am assured by Traub that his condition fits the clinical picture of the Fox-Fordyce eruption.

REPORT OF A CASE

Mrs. A. B., born in New York City of American born parents, had had the usual childhood diseases, and no chorea. Menstruation began at 12, was the regular twenty-eight day type, with flowing periods of three days profuse and one day scant. She went to high school, but interrupted her course to go to work. She was successful, and had been advanced regularly. At 15 years of age, she weighed 95 pounds (43.1 Kg.).

The patient met her husband at a party. He was an army veteran, and had been gassed. The following is the pertinent chronology: They were married,

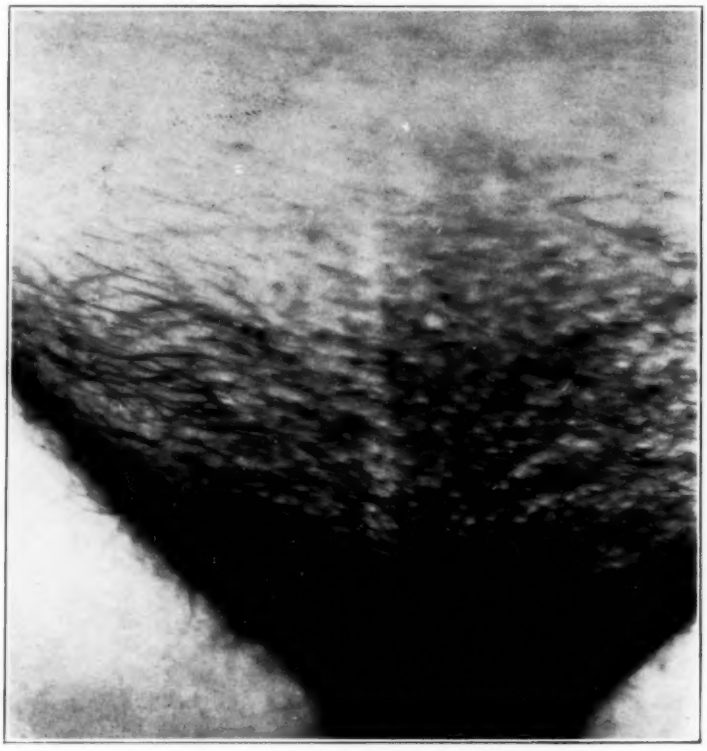

Fig. 2.—Condition in pubic region.

September, 1923; she returned to work, December, 1923; itching of the axillary spaces began late in January, 1924; her husband went to a sanatorium, September, 1924; itching in the pubic region began in August, 1925.

The patient weighed 110 pounds (49.9 Kg.) when she was married. When the itching began she weighed 130 pounds (59 Kg.). Despite reported sleepless nights and wakeful days, the patient gained weight, and at the time of reporting to me she weighed 147 pounds (66.7 Kg.). Instead of wearing size 14 (she had been a clothing model) she now wore size 38.

The clinical picture was that of the Fox-Fordyce eruption. Unfortunately, the piece of skin for examination was removed after a long

course of treatment, including galvanic and high frequency, so that the histologic picture was not that reported by Fordyce. The clinical photographs are given herewith.

RECENTLY SUGGESTED ETIOLOGY

On the basis of the investigations of Paul Schiefferdecker on the glands of man and lower animals, it has been suggested that some relationship exists between the residuals of gland structures and the Fox-Fordyce eruption. Schiefferdecker describes a group of glands which he calls the apocrine glands. These are found in the lower order of animals, but in the human being are limited in their location to those areas which are common sites of the Fox-Fordyce eruption. Women are more prone to have these glands than men. Certain races have these apocrine glands in excess; and Jewesses are among these. It is this last group which suffers most frequently with the Fox-Fordyce eruption. The apocrine glands are different from the secreting glands of the ordinary type, which have been named the ekcrine glands. It is considered as significant that the apocrine glands have been found to have some relationship to the development of the hairs at puberty in the sites which are commonly affected. The fact that gravid women show activity of the apocrine glands is held to be important. It is held that the malfunction of the apocrine glands is related to the poor function of the glands of the known endocrine series. This is the link between the Fox-Fordyce syndrome and the endocrine glandular system.

18 East 89th Street.

FORDYCE'S CONDITION OF THE PENIS

REPORT OF A CASE *

WILLIAM H. GOECKERMAN, M.D.
ROCHESTER, MINN.

In 1896, Fordyce [1] called attention to a peculiar affection of the lips and oral cavity in which the lesions are small, irregular, light yellow, closely aggregated milium-like bodies. Subsequently, it was learned that this condition is seen frequently by anyone who is in the habit of examining the oral cavity as a routine. While the lesion is of no pathologic significance, it is of some importance from the diagnostic point of view, and is probably of greater importance when it occurs on the genitalia.

In the literature, I have not been able to find any report of the occurrence of this disease of the mucous membrane except in the mouth, but Fordyce in his original communication called attention to the fact that Elliot had observed a similar condition of the mucous surface of the prepuce. Westberg, in discussing Delbanco's [2] patient, said that he had seen an analogous condition on the penis. Margolies and Weidman [3] mentioned in passing that they found one case of hypertrophy of the labia minora with about thirty yellow spots on the inner side of each.

Thus it is evident from the literature that Fordyce's condition is rather rare on mucous membranes other than that of the mouth. My own experience would also lead me to believe that this is true, at least of pronounced cases. It seemed to me, therefore, of some clinical and scientific interest to describe the following case.

REPORT OF CASE

The patient, aged 41, did not know that he had any penile affection until he began to observe himself carefully following a sexual exposure. The lesions were yellowish, had some tendency to grouping, and involved both the skin and mucous membrane On inspection, the lesions on the mucous membrane showed the classical appearance of Fordyce's disease so familiar in the oral cavity (fig. 1). There were no lesions of a similar character in his mouth.

A biopsy specimen from the prepuce included mucous membrane and skin surface. The yellowish milium-like bodies were apparently the result of

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* From the Section on Dermatology and Syphilology, Mayo Clinic.

1. Fordyce, J. A.: A Peculiar Affection of the Mucous Membrane of the Lips and Oral Cavity, J. Cutan. Dis. **14**:413-419, 1896.

2. Delbanco, E.: Demonstration: Fall von einfache Hypertrophie der Schleimdrüsen, München. med. Wchnschr. **14**:1510, 1898.

3. Margolies, A., and Weidman, Frederick: Statistical and Histologic Studies of Fordyce's Disease, Arch. Dermat. & Syph. **3**:723-742 (June) 1921.

Fig. 1.—Lesions on glans and shaft of penis.

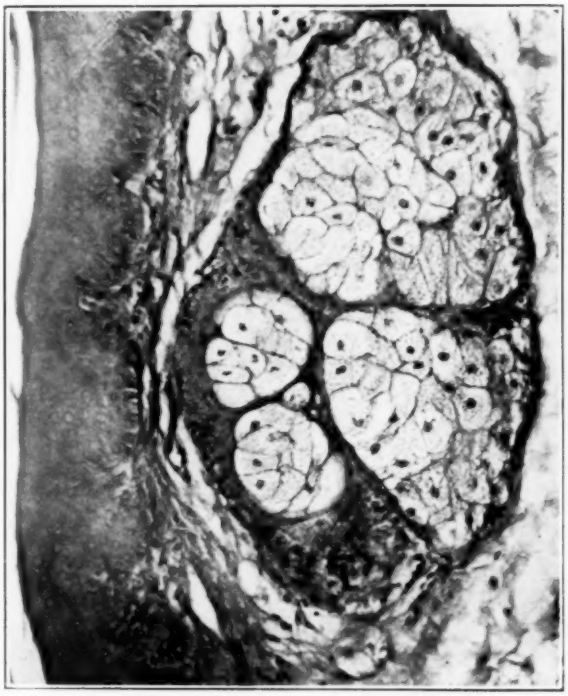

Fig. 2.—Photomicrograph showing the absence of sebaceous gland structure.

circumscribed structures made up of tissue typical of the sebaceous gland, including its alveolar arrangement (fig. 2). A true basal membrane seemed to be lacking. I was unable to determine that there were any ducts, and therefore it appears that these structures do not actually excrete. They differ in situation from normal sebaceous glands in that they are in the upper portion of the derma immediately beneath the epidermis. Evidence of hair follicles is entirely absent. Whether they are all in direct connection with the epidermis or whether some of these structures represent true nevoid cell nests cannot be determined. It is likely that the latter is true, and that they are sebaceous nevi. These sebaceous structures were located only in the portion of the section in which they were grossly visible. The portion of the section normal to the naked eye did not contain any of them.

COMMENT

There is little doubt that the anomaly so closely resembling Fordyce's condition of the mouth is the result of these sebaceous structures becoming endowed with some of the characteristics of nevi. An abnormal situation of an adenoma sebaceum can probably be excluded because of the sharply circumscribed character of the sebaceous structure, which gives it its characteristic milium-like appearance. It must be admitted, however, that, genetically, Pringle's disease and Fordyce's condition are probably closely related.

SCHAMBERG'S "PECULIAR PROGRESSIVE PIGMENTARY DISEASE OF THE SKIN"

LAWRENCE K. McCAFFERTY, M.D.
NEW YORK

Schamberg,[1] in 1901, was the first to describe this peculiar pigmentary disease. He described it at that time in the *British Journal of Dermatology,* and subsequently there have been seven other cases reported in the British dermatological journal. Kingery, so far as I can ascertain, was the first to report this condition in American literature. It is my opinion that the condition is not especially common in this country, and for this reason, another case may be of enough interest to be presented, with a brief review of the literature. It is interesting to note that all patients have been males; the condition is confined to the extremities; most of the cases have been reported in England; none have been reported on the Continent.

Schamberg's original patient was a boy, aged 15 years.

> Upon examination, on each leg was a patch extending three or four inches below the knees to one or two inches above. The patches were irregular in shape, smooth, not elevated and of a reddish-brown or burnt sienna. The border of the patch was made up of pinpoint to pinhead sized reddish punctae closely resembling grains of "cayenne pepper," although perhaps of a slightly darker tint; they had somewhat of a telangiectatic appearance. The middle third of both legs, the seat of the disease primarily, was almost normal, excepting merely a slightly diffuse brownish-yellow staining; above the ankles and feet was a punctated "cayenne pepper" eruption with moderate brownish-yellow pigmentation between the lesions.

The disease was also present on the left and right wrists. The right wrist presented almost one hundred "cayenne pepper" points surrounded by slight pigmentation; most of these punctae were discrete, but a few were aggregated in groups. The condition had been present four years, beginning on the tibial region of both legs. There were no subjective symptoms.

The microscopic picture was "that of a subacute inflammatory disease. The pathological process had its chief seat in the subpapillary layer of the corium, and with most intensity in the immediate neighborhood of a sweat duct."

"The absence of pigment was probably to be accounted for by the fact that the lesion was a comparatively new one, and pigmentary changes in the skin had not yet taken place."

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1. Schamberg, J. F.: Brit. J. Dermat. **13**:1, 1901.

This condition has been reported by the following men: Freeman [2] (1902), Colcott Fox [3] (1905), Graham Little [4] (1914), Whitfield [5] (1914), Adamson [6] (1916), Kingery [7] (1918), Graham Little [8] (1918), Adamson [9] (1919).

The clinical description by the aforementioned authors was almost similar to that of Schamberg's original case, and it is unnecessary at this time to give a detailed account. In a few words, Schamberg's description of "pinhead sized reddish punctae blending to form patches with new punctae at the periphery" describes the condition most accurately. Other splendid descriptions have been given by the various men, but none, I believe, more vividly. In all of the cases published, the diagnosis was definitely agreed on as Schamberg's disease, except one case presented by Freeman,[2] at which time a diagnosis of a mild eczema accompanied by pigmentation, especially affecting the follicles, was mentioned, but the description of the case corresponded to Schamberg's disease. In Whitfield's [5] patient, he also mentions angioma serpiginosum as a diagnosis, as he considers the two conditions varieties of the same disease. However, histologic examination by Schamberg,[1] Adamson [6] and Kingery [7] have distinguished Schamberg's disease from angioma serpiginosum. Aside from Schamberg's histologic examination, Adamson [9] found in the corium dilated blood vessels with slight proliferation of their endothelial walls, and a few lymphocytes around them; there were also a few epithelioid cells. The cellular infiltration in the corium was circumscribed. In the lower part of the cellular infiltration, and in and around the walls of the blood vessels, were numerous spindle-shaped groups of bright greenish-brown pigment granules. However, Adamson did not stain his sections to demonstrate the nature of these pigment granules.

Kingery's histologic report showed a marked low-grade inflammatory process plus pigmentary deposits. "The early inflammatory changes and beginning disintegration of the hemoglobin observed in sections from the more recent lesions differ only in degree from the picture of chronic inflammation and pigmentary deposition present in the older process." Kingery says that the chemical character of the pigment being

2. Freeman, W. H.: Brit. J. Dermat. **14**:425, 1902.
3. Fox, Colcott: Brit. J. Dermat. **17**:416, 1905.
4. Little, Graham: Brit. J. Dermat. **25**:357, 1914.
5. Whitfield, Arthur: Brit. J. Dermat. **26**:334, 1914.
6. Adamson, H. G.: Brit. J. Dermat. **27**:334, 1916.
7. Kingery, Lyle B.: J. Cutan. Dis. **36**:166, 1918.
8. Little, Graham.: Med. Ann., 1918, p. 469.
9. Adamson, H. G.: Brit. J. Dermat. **31**:179, 1919. In this article Adamson also mentions five cases of this condition which he has observed but which were not published.

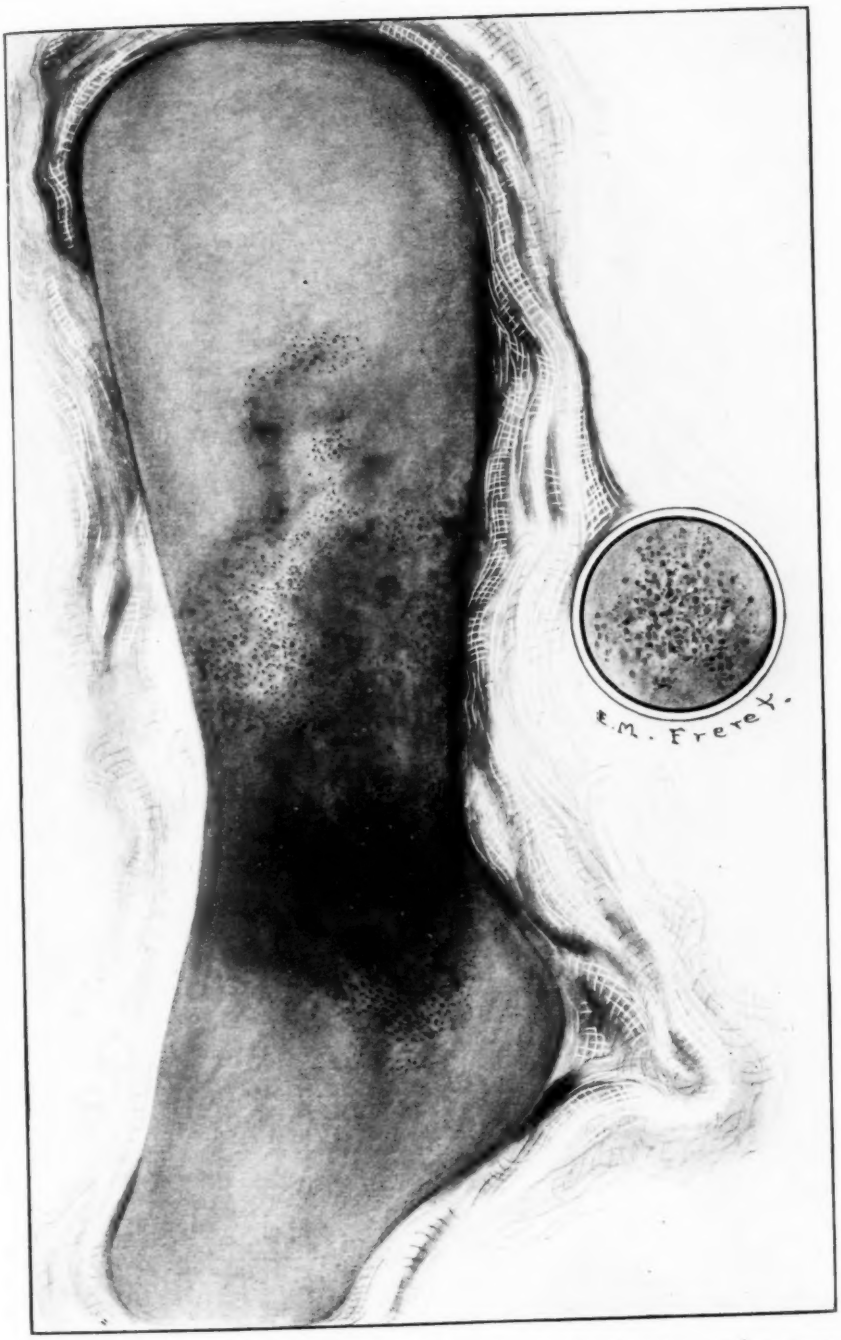

Fig. 1.—"Cayenne pepper" punctae; large plaques of skin pigmentation; areas of atrophy. The inset shows an enlarged area of the anterior part of the lateral aspect about 3 inches above the external malleolus, showing punctae changing in color, with very small areas of pigmentation and atrophy.

an iron derivative, the blood stream as a source, suggests itself. "Explanation of the comparative absence of pigment in the early sections is obvious, when one considers the retrogressive changes through which the hemoglobin must pass before hemosiderin is obtained." He believes that the pigmentary changes may take place in the following manner: "The circumscribed capillary proliferation suggests a local angiectatic process through which the circulation is impeded; this, in turn, giving rise to a diapedesis of red cells, followed by their disintegration in the surrounding tissue, and resulting in a pigmentation, limited by the extent to which the capillary proliferation progresses."

His conclusion is that Schamberg's disease is a hemosideric disease secondary to a localized disturbance of circulation occurring only in males in any decade of life, and involving only the extremities. The summary of the histologic picture by the writers mentioned is a low-grade inflammation in the upper corium with pigmentary deposits. We are, however, indebted to Kingery for his excellent work in demonstrating that the chemical character of the pigment was an iron derivative. The following description of the patient, whose case I report, is the second example of Schamberg's disease to be described in American literature and the fifteenth case in the literature of England and the United States, including the five unpublished cases of Adamson.

REPORT OF A CASE

History.—This was a private case, the patient being referred to me by his physician. A man, aged 47, a traveling salesman, born in the United States, complained of discoloration on the lower third of both legs. His family history was negative. He had had the usual diseases of childhood, but other than these he had never been seriously ill.

The present condition began three years ago (44 years of age) with the appearance of red spots situated below the left external malleolus. These spots gradually spread up the left leg and slowly became discolored into a dark greenish brown, these colored punctae coalescing in various areas into smaller and larger patches. There were numerous pinhead sized hemorrhagic lesions appearing beneath the external malleolus of the left leg. Just above the external malleolus of this leg were a few more pinhead sized hemorrhagic lesions. Near the posterior border of the external or lateral side of this leg were similar lesions which extended upward from the level of the external malleolus. The uppermost group of these hemorrhagic spots was at the very edge of the condition situated in about the middle third of the external surface of the lower leg. As may be seen in figure 1, all of these hemorrhagic spots were discrete and arranged in a corymbose manner. Intermingled with these hemorrhagic spots were spots of the same size gradually changing in color from red to brown and greenish brown. It will be seen also from figure 1 that there were various sized patches of a brown and dark greenish-brown pigmentation. Over the external malleolus the pigmentation was diffuse, and there was, as will be seen, a slight play of colors. When the skin of the patient was examined from a distance, the color appeared uniform, but on close examination it was seen to be mottled. There were smaller areas of

Fig. 2.—Lateral aspect of left leg, presenting same view as that in figure 1.

pigmentation extending up the leg, but no areas of pigmentation were separated from the condition "en masse." Situated just above the external malleolus and intermingled with the red hemorrhagic punctae were various sized areas of dead white which were areas of atrophy. At the periphery of the upper portion of the condition there was a diffuse paling of the hemorrhagic spots which appeared pale red.

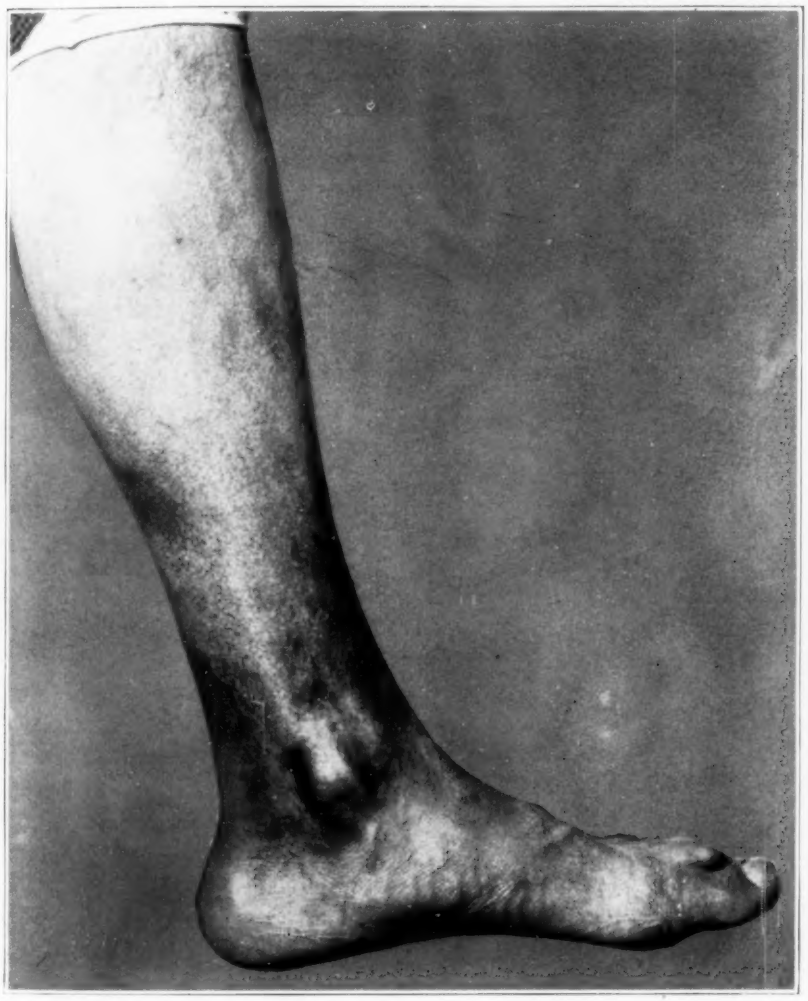

Fig. 3.—Mesial aspect of left leg similar to lateral aspect.

An enlarged drawing of an area situated in the middle portion of the condition showed these hemorrhagic spots going through the various grades of degeneration from red to light brown to greenish brown. Atrophic areas were also seen here.

Fig. 3 shows also the mesial or internal aspect of the left lower leg in which the condition corresponded similarly to the lateral or external aspect with

the exception of an isolated group of hemorrhagic spots situated an inch or two away from the main condition. The general character of the mesial aspect of the leg was similar in appearance to the lateral aspect.

On the right lower leg both in the mesial and lateral aspects the condition had already begun but had not progressed so far, being confined almost solely around the malleoli and consisting of hemorrhagic spots which were degenerating into the various colors above described. These colored punctae gradually fused into the mottled pigmentation which has been described. There was a slight amount of scaling present, but hardly enough to remark about. There was no evidence of varicosities or of apparent circulatory disturbance in either leg.

Physical Examination.—The physical examination was negative. There was no evidence of circulatory disturbance; the blood pressure, both systolic and diastolic, was within normal limits; the blood Wassermann test was negative; urinalysis was negative; the blood picture and the blood chemistry were normal.

Unfortunately, the patient objected to the removal of a section for histologic study.

COMMENT

From the original description by Schamberg and others who have reported cases, the case which is here reported is identical in all of its clinical characteristics to a condition which Schamberg first described, and known as a "peculiar progressive pigmentary dermatosis." In some of the literature, this disease has been likened to angioma serpiginosum and Majocchi's disease. However, the condition as seen in figure 1 is so different in many of its aspects from these two conditions that it is unnecessary to enter into a differential diagnosis, which may be found in any of the standard textbooks.

The case is merely presented as one of Schamberg's disease or "a peculiar progressive pigmentary dermatosis." It is the opinion of others, as well as my own, that the condition which Schamberg described is not a part of another dermatosis but a definite clinical entity. I record it as rather uncommon, at least in the United States. The clinical picture is clear-cut in a typical case, and, being so, if the disease were not uncommon, I should be inclined to believe that more cases would come to the attention of dermatologists, and that at least the society transactions would report similar cases. The excellent histologic work done by Kingery and the suggestion made by him relative to the possible causative factor before mentioned and the transitory change in the skin which produces this interesting disease, seem highly reasonable and should be considered correct. No suggestion will be made here regarding treatment, as the patient has been under observation only a short time. There is nothing in the literature referable to the treatment of this condition.

Clinical Notes

TRICHOTILLOMANIA

L. G. Beinhauer, M.D.
PITTSBURGH

Trichotillomania is a neurosis peculiar in its form, with no pathologic basis, the origin of which is usually some trivial occurrence which makes the subsequent extraction of hair a dominant obsession.

REPORT OF A CASE

Mr. A. H. W., aged 48, unmarried, an architect, consulted me for an uncontrollable desire to pull out the hairs of the bearded and eyebrow regions. The patient said that this condition had existed for the past six years, during which period no relief was obtained from any medical treatment. Six years ago the patient had a nasal abscess, which was characterized by a "foul, putrid, wormy odor," and was relieved by the extraction of a nasal hair. Since this attack the patient had been subject to "head colds" and an associated desire to extract hairs had developed. The recurrence of the nasal odor, previously described, has become a constant feature with the head colds, and relief was obtained by extraction of the nasal hairs. Two years ago a "tightening sensation" developed at the roots of the hairs of the eyebrow and bearded regions and extraction of hairs has been resorted to in order to "ward off an abscess formation." Recently the roots of the hairs over the lip areas have developed a "gelatin like mass" appearance for which the hairs are now being extracted. At present the condition is progressing in severity and is aggravated by any mental tension or strain, and the inability to explain this condition has left the patient's mental state in a chaos. Last summer while on a vacation trip of three month's hunting, the condition entirely disappeared.

A complete physical examination, except for a corneal, conjunctival and pharyngeal anesthesia, was negative. The dermatologic examination revealed a peculiar masked facies with an artificial appearing alopecia superimposed. The alopecia involved the eyebrow, intranasal, lip and cheek regions. Over the inner third of both eyebrow regions was a sharply defined alopecia on a noninflammatory base. The upper lip showed a similar condition. Intranasally about the orifices, the hair was removed, and a tendency toward hair regrowth was present. The bearded regions revealed a somewhat modified picture of irregular alopecia, excoriations and pea-sized scarring of a bizarre design on an apparently normal skin. The impression gained from this condition was that it was purely an artificial one.

The neurologic examination revealed no evidence of physical disability. The complaints were those seen in nervous states known as psychasthenia. A dominant obsession was present and was an indescribable feeling that certain particular hairs must come out for local or general relief. The patient was a bachelor, somewhat overworked, living alone, with only a few social contacts, and he was never entirely happy and contented in the city or with office work. He cared more for the farm and outdoors and manifested many repressions and discontents. Psychanalysis was not resorted to, because it was not necessary. All laboratory reports were negative.

The patient was advised of the true nature of this disease. The treatment was then outlined and he was told that his condition must be conquered in the reverse order, but that, in general, he would be forced to open his life to others through outside interests, such as social and reading contacts. Proper exercise and morning and evening baths were advised, together with a short rest at noon time. Collodion was advised to be painted over the areas from which the hair was extracted.

One month later the patient returned, and, much to our surprise, he proved tractable and teachable, and hair regrowth was noticed over the affected areas with little attempt toward extraction of the same. Subsequent visits proved that considerable progress had been made by the patient, and his attitude toward social duties and outside interests had shown a complete reversal. Occasionally, it is necessary to stop the collodion paintings and substitute suberythema exposures of ultraviolet therapy to combat extraction of the hairs. At the last visit, one month ago, a complete regrowth of hair had taken place over the eyebrow region, and the collodion paintings were stopped, but the patient's mental disturbance has not entirely disappeared. However, I believe from the progress shown in his attitude and his attention toward outside life and interests, that there is a fair prospect for recovery within the next six or twelve months.

5026 Jenkins Arcade.

News and Comment

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German Dermatological Society in Czechoslovakia Republic.
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Munich Dermatological Society.
Deutsche Dermatologische Gesellschaft.

Abstracts from Current Literature

STANDARDIZATION OF ULTRAVIOLET RAYS: THE ULTRAVIOLET UNIT. E. A. POHLE, J. A. M. A. **86**:818 (March 20) 1926.

There is need of a standardized unit for the measurement of the ultraviolet dosage. Pohle, after considerable experience with the Keller test, recommends its employment. This test is based on a photochemical effect produced in a watery solution of hydriodic acid by ultraviolet light. The test is fairly simple and sufficiently accurate for clinical purposes.

The author describes it in detail and suggests that lamps be tested by it about a month. He likewise suggests the designation "ultraviolet unit" for a medium erythema dose equivalent to the end result of the Keller test.

CONTROLLING THE "ODOR" AND "TASTE" OF ARSPHENAMINE. J. H. STOKES, J. A. M. A. **86**:840 (March 20) 1926.

For the many patients who complain of the odor of the arsphenamine Stokes recommends that they suck a wintergreen or clove wafer during the administration of the drug.

A MICROSCOPIC SLIDE PRECIPITATION TEST FOR SYPHILIS: PRELIMINARY REPORT. B. S. KLINE and A. M. YOUNG, J. A. M. A. **86**:928 (March 27) 1926.

In this test the authors use the Kahn antigen. The technic is given in detail. They found a close agreement between it, the Kahn test and the Wassermann test. It has advantages over the Kahn test in that it is simpler, requires less apparatus and serum, and is easier to read.

CUTIS VERTICIS GYRATA. R. J. SISSON, J. A. M. A. **86**:1126 (April 10) 1926.

In this patient, aged 29, the disease began five years before he was seen by the reporter. The skin of the scalp and forehead was thrown into transverse folds and furrows. Acromegaly was also present. Apparently this is the first time that the association of acromegaly and cutis verticis gyrata has been recorded.

LYMPHOBLASTOMA (MALIGNANT LYMPHOMA): AGE AND SEX INCIDENCE, DURATION OF DISEASE, AND THE EFFECT OF ROENTGEN-RAY AND RADIUM IRRADIATION AND SURGERY. G. R. MINOT and R. ISAACS, J. A. M. A. **86**:1185 (April 17), 1926; J. A. M. A. **86**:1265 (April 24) 1926.

An extensive study based on 477 cases of lymphoblastoma is presented by the authors. They discuss the unsatisfactory condition of terminology in these diseases, and the confusion that has arisen because of multiplicity of names. In their report, they have excluded cases of typical chronic lymphatic leukemia (this group has been studied previously by them). In most of the cases the clinical diagnosis has been supported by pathologic study.

The highest incidence of the disease is between the ages of 20 and 24, with a secondary rise in incidence between 35 and 39. In the series, 68 per cent of the cases occurred in males; 32 per cent in females. In Hodgkin's disease, the greatest incidence is between 20 and 30 years of age, with a rapid decline in occurrence thereafter.

In plotting the influence of radiation on the duration of the disease, no significant differences were noted between the two groups. Certain factors come into operation in studying this phase of the question which prevent satisfactory deductions. Patients treated surgically lived on the average over a year longer than those not operated on.

Patients treated with a combination of surgery and radiation lived longer than those subjected to one or the other of these measures alone. But here, in the evaluation of these apparent benefits, certain factors cast some doubts on the statistical result.

About 10 per cent of all cases (including irradiated and nonirradiated) lived for six years or longer. In this group it is difficult to appraise the effect of treatment, as there is a natural variation in the course and duration of the disease. However, irradiation is undoubtedly of great value to patients with lymphoblastoma; it alleviates symptoms, decreases the size of lesions and improves the patient's efficiency, although it does not appear to influence significantly the duration of the disease.

Error of Basing Serum Diagnosis of Syphilis on the Kahn Reaction Alone. S. Greenbaum, J. A. M. A. **86**:1273 (April 24) 1926.

The author is convinced that both the Kahn and Kolmer test should be made simultaneously on each suspected serum. Each test has a high degree of specificity; they agree in about 96 per cent of cases. When discrepant, one may be positive and the other negative.

The Kahn test is fairly simple, and there is some temptation to use it alone for diagnostic purposes. A series of cases are presented to show that this may lead to error, as occasional false negative or positive results are obtained with this test.

Angioneurotic Edema: Report of Case, with Necropsy Findings. I. M. Wason, J. A. M. A. **86**:1332 (May 1) 1926.

The patient was an infant of 14 months. A few minutes after she was given a cup of milk, dyspnea developed, and the child died of suffocation before assistance could be given. Previously she had had attacks of urticaria. Three other children in the family had anaphylactic manifestations. At necropsy extreme edema of the epiglottis, uvula and pharynx were noted.

Erythema Multiforme Complicating Vaccination. F. J. Eichenlaub, South. M. J. **19**:186 (March 26) 1926.

After a short review of the literature of eruptions complicating vaccination, the author reports seven cases of the association of erythema multiforme with this procedure. All patients were adults, and the eruption appeared from the eighth to the fifteenth day after vaccination. Eichenlaub thinks that the cause of the eruption must be either in the virus itself or in the antitoxin produced in the system. The eruption develops too late to be due to a foreign protein constituent of the vaccine. The relation of the eruption to variola is indefinite. If it is analogous to hemorrhagic smallpox, the toxin must be responsible. The incidence of this type of eruption is estimated at approximately one in 10,000 vaccinations.

Michael, Houston, Texas.

CUTANEOUS STRIAE, PURPURA, HIGH BLOOD PRESSURE, AMENORRHEA, AND OBESITY, OF THE TYPE SOMETIMES CONNECTED WITH CORTICAL TUMOURS OF THE ADRENAL GLANDS. F. PARKS-WEBER, Brit. J. Dermat. & Syph. **28**:1, 1926.

Weber states that cases have occasionally been demonstrated or recorded — generally in young women — in which the onset of a coarse, plethoric looking type of obesity, accompanied by high blood pressure, chronic cutaneous purpura, and large striae atrophicae of the trunk and limbs suggest the presence of an adenoma or adenocarcinoma of the suprarenal cortical substance, a so-called hypernephroma (benignant or malignant), but in which the absence of any such tumor subsequently becomes evident. He then discusses several cases of this type and describes the morphogenetic and hormonic effects of true hypernephromas of the suprarenal cortex.

His own case occurred in a woman, aged 28, who showed the findings recorded above. Her menstrual periods ceased suddenly about, September, 1921, but she had three slight periods again after her marriage in 1922. Since March, 1923, there had been complete amenorrhea. About March, 1922, she began to get fatter, especially in the face and abdomen, but the chief symptom developed about March, 1923, with the onset of complete amenorrhea. The patient died in July, 1925, in an attack resembling acute pulmonary edema. At necropsy there was no tumor of the suprarenal glands, while in the pituitary gland there was a minute adenoma. Weber states that the main feature cannot be explained by the latter.

TREATMENT OF ARSPHENAMINE DERMATITIS WITH SODIUM THIOSULPHATE. FOONG KONG CHEN, Brit. J. Dermat. & Syph. **28**:20, 1926.

The author has studied ten cases of postarsphenamine exfoliative dermatitis occurring in his clinic during a two year period. In three of these, treatment with sodium thiosulphate was employed. In these cases the average duration of the skin lesions was approximately nine days, whereas in the seven patients not so treated it was more than thirty-six days.

When the sodium thiosulphate solution was not freshly prepared on the day it was to be used, sharp reactions in the form of chill, fever and rapid pulse occurred.

SENEAR, Chicago.

TINEA MICROSPORICA IN SICILY. MARIO TRUFFI, Arch. ital. dermat. e sifil. **1**:197 (Dec.) 1925.

The author isolated a microsporon from three cases of tinea. This microsporon of animal origin produces marked inflammatory reaction, clinically traduced by lesions of pustular folliculitis and of kerion. He proposes to name the fungus *"Microsporum niveum."*

MULTIPLE LEIOMYOMA OF THE SKIN. G. M. GARIBALDI, Arch. ital. dermat. e sifil. **1**:213 (Dec.) 1925.

Numerous small tumors were located on the left upper extremity of a male patient aged 32. The lesions varied in size from that of a pinhead to that of a pea; they were pink or yellowish, hard and covered by apparently normal epidermis. No subjective symptoms were present. Histologically, the epidermis was normal. The chorion showed a great proliferation of nonstriated muscular fibers gathered into thick bundles.

CUTANEOUS SARCOID. P. LONGO, Arch. ital. dermat. e sifil. **1**:241 (Dec.) 1925.

In the case reported the lesions were situated on the chest and arms. Histologic examination proved the nodules to be typical sarcoid of the Darier-Roussy type. The author concludes that sarcoid is a well defined clinical entity, probably a form of attenuated tuberculosis, with no relation to syphilis or rheumatism.

LEUKOPIGMENTARY NEVUS AND PERINEVIC VITILIGO. A. NARDUCCI, Arch. ital. Dermat. e sifil. **1**:271 (Dec.) 1925.

This condition was first described by Sutton in 1916 under the name of "leucoderma acquisitum centrifugum." The author reports two cases. The skin of the affected parts was physiologically normal.

FAVUS DUE TO ACHORION GYPSEUM. L. MAZZINI, Arch. ital. dermat. e sifil. **1**:277 (Dec.) 1925.

The patient, a woman, aged 28, presented a chronic, crusted lesion on the left lower eyelid. The cultures were typical *Achorion gypseum*. There were no lesions on the scalp.

SYPHILITIC CHANCRE OF THE VAGINA. F. RONCHESE, Arch. ital. dermat. e sifil. **1**:281 (Dec.) 1925.

Syphilitic chancre of the vagina is a clinical rarity. The author reports a case in which two initial lesions were observed in the anterior wall of the vagina.

CHEMISTRY OF THE BLOOD IN SOME DERMATOSES. B. SPARACIO, Gior. ital. dermat. e sifil. **66**:1481 (Dec.) 1925.

In eczema the blood sugar is increased in 18 of 27 cases examined; uric acid is increased in 16 of the 27 cases; calcium is increased in 11, diminished in 8 and normal in 6; sodium chloride is increased in 20 and normal in 7.

In neurodermitis, blood sugar is increased in all cases.

In psoriasis, sugar and sodium chloride are found increased; uric acid is normal in 19 cases and increased in 6 cases.

In urticaria uric acid is increased; sugar is increased in 4 cases and normal in 3.

In pruritus, uric acid and sodium chloride are increased.

In furunculosis the increase of the blood sugar is constant.

In seborrhea, sugar is increased; calcium and sodium chloride, are normal.

In acne vulgaris, sugar and sodium chloride are increased.

In erythema multiforme, sodium chloride and uric acid are increased; sugar is increased in 4 of 8 cases examined.

In one case of mycosis fungoides examined, sugar, sodium chloride, uric acid and calcium are greatly increased.

SYPHILITIC DIABETES. B. SPARACIO, Riforma med. **42**:169 (Feb. 22), 1926.

The author reports two cases of syphilitic diabetes. The first case occurred in a woman who had had syphilis several years before. The second was a case of acute diabetes occurring two months after the syphilitic infection. Both patients responded well to specific therapy.

WASSERMANN AND SACHS-GEORGI REACTIONS IN LEPROSY. E. SECHI, Sperimentale **79**:1069 (Jan.) 1926.

The author performed both tests in eleven cases of leprosy. The Wassermann test was positive in eight cases and negative in three. The Sachs-Georgi reaction was positive in one case, negative in eight and doubtful in two. The Sachs-Wassermann test was positive in one case and negative in ten.

PARDO-CASTELLO, Havana.

DEMONSTRATION OF RARE EPITHELIOMAS OF THE SKIN. J. JADASSOHN, Beitr. z. klin. Chir. **136**: 345, 1926.

Between the basal cell and spinal cell epitheliomas are the mixed forms, in which the two histologically characteristic pictures exist side by side, and the intermediary forms, in which the cells are neither typically basal or typically spinal. These nonclassical forms incline more to the basal cell type, but are thought to be more malignant and less amenable to radiotherapy. In Jadassohn's experience, superficial basal cell epitheliomas are more frequent on the trunk than spinal cell epitheliomas. He cites a case in which for twenty years the lesion appeared only as a lentil sized macule, then suddenly ulcerated. He has seen two cases of basal cell epithelioma develop from sebaceous gland nevi. An interesting case is that in which three different lesions—Bowen's disease, spinal cell epithelioma and a peculiar growth resembling adenoid epithelioma—developed on a hand which had been exposed to the roentgen ray for psoriasis. The author has seen three cases of hidrocystadenoma on the head in adults and one of the thorax in a child. These tumors become malignant locally. The multiple or single tumors of the scalp, classed by Spiegler as endotheliomas, are undoubtedly of epitheliomatous nature. They have been known to become malignant. The only skin endotheliomas that Jadassohn recognizes are psammomas. The article is illustrated with photomicrographs.

LEPROSY IS CURABLE. A. PALDROCK, Dermat. Wchnschr. **82**:597 (May 1) 1926.

In January, 1924, five, and in November, 1925, two, patients were discharged from the leper hospital attached to the Dorpat University, free from symptoms and bacterioscopically free from lepra bacilli. These were a part of sixteen patients treated by carbon dioxide snow during less than two years. Paldrock's theory is that the cold so alters the lepra bacilli as to free the antigens, and the formation of antibodies results. The treatment is thus an active immunization. In the last patient the carbon dioxide snow treatment was combined with bismuth treatment with the idea that the lepra bacilli, robbed of their protecting albuminous coating by freezing, would be more susceptible to chemical remedies. This patient became well in half the time required by the others.

PSYCHIC URTICARIA. F. DUFKE, Dermat. Wchnschr. **82**:705 (May 22) 1926.

Dufke describes the case of a 28 year old married woman of good health and normal mentality on whose face, neck and arms an urticarial eruption appeared when a piece of silk or satin was laid around her neck. The urticaria developed with local heat, itching, redness and the appearance of white wheals varying in size from a small dot to that of a lentil. It set in a few minutes after contact with the silk and lasted an hour or two. She said that for about two years these symptoms had appeared when she wore clothing of silk or satin or carried a handbag of these materials. On one occasion they had appeared on momentary contact with silk worn by another woman. Dufke laid a piece of

linen on her neck and made her believe that it was silk; the urticaria appeared. It is notable that the first wheals appeared, not under the linen, but on the arm. Dufke considers this a case of essential angioneurosis or psychic urticaria.

Chronic Acro-Asphyxia, Raynaud's Disease and Scleroderma. O. Dahmen, Dermat. Wchnschr. **82**:737 (May 29) 1926.

It is difficult to differentiate sharply the clinical pictures of these vasomotor-trophoneurotic diseases. The same etiologic factors apply to all three; recent investigations have connected them with syphilis and tuberculosis. In all, the hands are most frequently affected. In Raynaud's disease the vasomotor symptoms stand in the foreground; these, with pain and sensory disturbances, are the earliest symptoms. The disease develops with attacks and quiet intervals. In cases accompanied by trophic disturbances atrophic processes in the bones are early seen in the roentgen-ray picture. Chronic hypertrophic acro-asphyxia develops gradually and is painless. In scleroderma the trophic disturbances are in the foreground with early changes in the roentgen-ray picture, similar to those of Raynaud's disease. Pigmentation disturbances are typical of scleroderma. Pain is rare, but burning, itching and numbness are frequent. Most cases are not clear-cut, but represent transitions from one to another of these diseases. A case of chronic acro-asphyxia with sclerodermic changes is described.

Diagnosis and Symptomatology of Leprosy. The Question of Pigmented Neuroleprids. E. Schröpl, Dermat. Wchnschr. **82**:773 (June 5) 1926.

In Unna's clinic the diagnosis of lepra nervosa was made during an early stage in the case of a woman, a native of Colombia. She complained chiefly of girdle-like sensations of heat or burning extending from the hips and shoulders. The only suggestive symptoms were falling out of the eyebrows and irregular, symmetrical pigmentation of the skin of the arms, in the form of brownish-yellow spots neither shiny or desquamating. This hyperpigmentation was, however, only to be seen on close examination. The nasal secretion was examined for lepra bacilli without success, but in the exudate from a carbon dioxide snow blister on a pigmented spot, in skin excised from the pigmented region, in apparently normal skin and in a pea-sized angioma of the forearm, the lepra bacilli were found. Except in the last named place, they were few. Later an occasional one was discovered in the nasal secretion. The nasal changes, pointed out by Sticker as the earliest changes in leprosy, were absent. Schröpl believes that the finding of lepra bacilli in apparently normal skin gives support to the neurotic hypothesis of the leprid. The girdle sensations reacted to provocative test injections, and he believes that they are explained by a specific attack on the nervous system.

Society Transactions

CHICAGO DERMATOLOGICAL SOCIETY

Regular Meeting, Dec. 16, 1925

E. P. ZEISLER, M.D., *President, in the Chair*

RESISTANT ULCERATING SYPHILIS. Presented by DR. ORMSBY.

A man, aged 29, presented an unusually deep and destructive ulcerating process involving the nose and deeper tissues and the upper lip.

A primary lesion was described as having occurred four years previously, this being followed by a maculopapular and later by a nodular eruption. During the first two years injections of mercury were employed without affecting the clinical symptoms or changing the serologic findings. Two years ago neoarsphenamine therapy was instituted, which cleared up the clinical symptoms. During the balance of the time injections of mercury were given and potassium iodide and mercury were given internally; lastly, a series of injections of bismuth was administered.

The present lesion began eight and one-half months previously as a nodule on the nose, which enlarged and ulcerated three and one-half months ago, the destructive process spreading rapidly in spite of treatment. When first examined, two and one-half months before presentation, there was an oval ulcer 1.5 by 2 cm. in diameter on the surface of the nose. The ulcer was circinate in outline and had made a deep excavation in the nose extending to near the mucous membrane. Its floor was irregular in outline and covered with coagulated serum. Its margin was elevated, slightly red and indurated. On account of the saturation of the patient with potassium iodide previously administered, two injections of decinormal sodium chloride solution were given at four-day intervals as preliminary treatment. Much iodine was subsequently eliminated in the urine. One week later the ulcer was clean and showed some improvement. The Wassermann reaction and the Kahn test were completely positive. At this time a series of injections of arsphenamine were instituted; the first three at two-day intervals and eight more at five-day intervals. These were followed by injections of a nonsyphilitic protein and these by four intramuscular injections of sulpharsphenamine. During this period the ulcerative process gradually progressed, with temporary cessations. The edge was always elevated, reddened and tender. A biopsy made one month ago revealed a granuloma with no signs of a carcinoma.

At the time of presentation the entire end of the nose and the central two thirds of the upper lip had been largely destroyed. The ulceration extended deeply into the nasal cavity and had destroyed cartilage and mucous membrane. The Wassermann reaction, frequently made, remained strongly positive all of the time.

DISCUSSION

DR. COLE: I think it is a privilage to have the opportunity of seeing this case. I have never seen one just like this. It resembles somewhat a blastomycosis, but Dr. Ormsby says everything has been ruled out. The only thing I would have to say would be in regard to therapy. I do not know how much reaction he was able to obtain from milk. I would give that patient a seventy-five million typhoid inoculation and get the temperature up to 40 C. (104 F.) or so. What the patient needs is a real protein shock. This could be followed at three to five-day intervals with successive injections of 100 to 150 millions.

DR. O'LEARY: I am in accord with the opinion expressed by Dr. Cole in that the destruction of the nose is probably attributable to a resistant syphilis. Nevertheless, I do not believe we are justified in discarding without further observation the possibility that the lesion may be a carcinoma in a syphilitic patient. The patient presented calls to mind a young man whom we observed for some time. The distribution and destruction is almost similar in both cases. Three biopsies in our patient were reported as inflammatory, but the fourth specimen obtained from the upper pole of the cavity previously occupied by his nose was reported as a squamous cell carcinoma of the type described by Krompecher. I would be in favor of continued antisyphilitic treatment aided by nonspecific measures as suggested, but if without fairly prompt response, another specimen for pathologic study should be obtained from the upper and inner borders of the cavity.

DR. FOERSTER: Fortunately for the patient as well as the physician, these conditions are of rare occurrence. I regard it as one of the forms of precocious tertiary ulceration, occurring, as the term indicates, very early in the course of the disease—in the first year usually.

The clinical resemblance to blastomycosis and to epithelioma has been spoken of, but the course is too rapid for an epitheliomatous process. Furthermore, the sections do not show the presence of epithelioma. I look on it as an ulcerating, rapidly disintegrating syphilitic process in a person with lowered resistance. How this lowered resistance has been brought about, whether due to some inherent tissue weakness, or whether the early treatment that he has had may have influenced his resistance unfavorably, or whether there is some underlying disorder, such as nephritis, has to be looked into. The essential feature of these cases is the lack of resistance on the part of the patient, and the therapy, as indicated by Dr. Cole, would be with the idea of bringing about a supportive reaction. I would suggest in addition the use of the old-fashioned Zittmann's decoction. I have used that a number of times in precocious syphilis, with beneficial results. It is a remedy we should have in mind when we are confronted with an ulcerative syphilitic lesion which does not respond to the usual arsenic, mercury and iodide treatment.

DR. STILLIANS: It is an instructive case, which impresses on us that we are dependent on the constitutional reaction for success in syphilis.

PROFESSOR DOHI, Tokio, Japan: This case recalled to my mind Kaposi's statement that too early treatment with mercury may be followed by precocious gummas, often within one year. Such cases have become more numerous since the advent of arsphenamine therapy. I believe this patient either presents such a gumma or that the lesion may be a common ulcer developing on a syphilitic background. I have found a diphtheroid bacillus in cultures taken from similar ulcers involving the upper lip and alae of the nose, and such ulcers become grave when they involve the inside of the nose. While I believe the lesion here to be syphilitic, yet on account of its resemblance to these ulcers, I would recommend the use of the Paquelin cautery in its treatment. The nature of these cases has been an unsolved problem to me for some time.

DR. ZEISLER: Is there any possibility of this being a mixed infection? Were cultures made from the pus?

DR. ORMSBY: I much appreciate Dr. Cole's suggestion. I had the same thing in mind, and that is the reason I gave the nonspecific protein injections, but I thought at the time that the reaction was not sufficiently marked. It is our intention to hospitalize the patient so that the reactions can be properly treated. My idea in giving the intramuscular injections was to get the nonspecific

protein effect as well as the specific effect of arsphenamine. Absorption of the necrosed tissue induced by the local action of arsphenamine occasionally produces a sharp general reaction which could act as a nonspecific protein.

As to some other infection, I have had that in mind, but bacteriologic examinations have proved negative. Two weeks ago, I decided that a histologic examination should be made. The sections proved the ulcer to be granulomatous. I believe that the patient has syphilis, and that his resistance to *Spirochaeta pallida* is reduced to a minimum. The Wassermann reaction has been positive constantly even during intensive treatment. My hope lies now in taking him to the hospital and giving him shock doses of a nonspecific protein followed by mercury and arsphenamine. We have had granuloma inguinale, chancroid and amebic infection in mind. The condition began like syphilis, and has thus far pursued an intractable course.

GUTTATE MORPHEA (?). Presented by DR. STILLIANS.

A white woman, aged 37, unmarried, a bookbinder, first noticed white spots on her breasts one year ago. Since then they had slowly increased in number. Within the past ten days, she had noticed some red spots on the left side of the chest and left breast, and one of the larger white spots had ulcerated. Recently a group of white spots appeared on the upper part of the abdomen. There had been no subjective symptoms.

Over the median side of both breasts, on the median part of the upper part of the abdomen and on the center of the chest above the breasts were many pearly white macules, from 0.1 to 1.0 cm. in diameter, round or oval, some of them with a central yellowish depression, some of the small ones on the chest with slightly depressed, pitted red centers and narrow white borders. The larger ones were covered by very adherent, sparse silvery scales, on removal of which the skin showed pearly white. On the left side of the chest near the axilla and on the breast were a very few red macules from 0.2 to 0.4 cm. in diameter. On the left breast was a shallow ulcer from 1.5 to 1 cm. in diameter, with elevated red borders, and joining its upper end was a scaly white macule about 0.5 cm. in diameter, the nonulcerated remnant of the former white macule. The larger white macules manifested on palpation very slight increase of consistency, apparently only that which could be accounted for by the scales.

DISCUSSION

DR. ORMSBY: I believe the disorder is a lichen planus atrophicus et sclerosus notwithstanding that some of the lesions show some ulceration and secondary changes. There are several small lesions that are sufficiently typical to decide for me the question of diagnosis. I see nothing suggestive of a guttate morphea other than the color of the lesions.

DR. COLE: I agree with that diagnosis.

DR. ZEISLER: Has anything ever been accomplished therapeutically with these cases?

DR. ORMSBY: I find that they clear up with roentgenotherapy.

DR. STILLIANS: The lesions on the inner side of the breast, the upper part of the abdomen and the peculiar pearly, glistening appearance made me think of guttate morphea. I am very glad to reconsider my diagnosis.

DISSEMINATED LUPUS ERYTHEMATOSUS. Presented by DR. SCHMIDT.

This patient was presented before the Society at its annual meeting in January, 1925, and the case is recorded in the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY (**12**:410, 1925). He was again presented to show the effect of treatment.

DISCUSSION

DR. STILLIANS: I would like to have Dr. Schmidt tell us what he did for the patient.

DR. SCHMIDT: We first used the quartz light on the lesions on the face, then quinine internally in large doses and the application of tincture of iodine locally to the lesions on the arm, face and right thigh. Previous to that there was no diminution in the size of the lesions. Two weeks after beginning the constitutional treatment, there was an improvement which was quite definite in all the lesions. The edematous character of the body lesions rather rapidly disappeared, and they have all undergone resolution except the small ones on the face and nose. The Wassermann reaction was positive. The patient received three courses of bismuth, each consisting of 3 Gm. of an insoluble salt, and after each series the Wassermann reaction remained positive.

DR. ZEISLER: Dr. Engman suggested iodoform in 1 grain (0.065 Gm.) doses in these cases. I tried it out, but the gastro-intestinal reaction was so severe that it had to be discontinued.

DR. ORMSBY: We have been using iodoform internally for many years for actively spreading cases of lupus erythematosus, with good results. We employ it in the dosage of 1 grain, three times daily, and have had no gastric disturbance produced by it. If necessary, the beginning dosage might be reduced. We showed a patient with subacute disseminated lupus erythematosus several months ago before this Society whose lesions have cleared up under this therapy. In the old fixed types it is of no value. It was suggested in this country about twenty-five years ago by Whitehouse of New York.

DR. OLIVER: Do you know whether Parke, Davis & Co., have discontinued making a pill of iodoform?

DR. ORMSBY: They still furnish the Chicago market. It is put up in pill form with the carbonate of iron.

LIVEDO RETICULARIS AND ERYTHEMA INDURATUM. Presented by DR. EBERT.

A woman, aged *32*, presented a permanent reticular livedo, which was marked over the arms and legs, especially over the buttocks, and less marked on the back, in the axillae, the epigastrium and the groins. She also had irregular dime-sized ulcers on the ankles and numerous scars on the legs, most marked over the shins.

For eight years there had always been two or three lesions present on the legs. They appeared as subcutaneous nodules, which ulcerated in two or three weeks, persisted for one or two months and left scars. They were more frequent in summer than in winter.

The livedo was first noticed four years ago on the legs and later on the other areas. She had always had chilblain circulation of the hands and feet. Her general condition was excellent until the past year, when she complained of a cough and loss of strength. The Wassermann reaction was repeatedly negative.

There was a bluish-red, reticular network with islands of normal skin, quarter to half-dollar sized, surrounded by livid bands from *2* to 6 mm. wide, which were not raised nor appreciably infiltrated. The network resembled an incompletely developed cutis marmorata.

DISCUSSION

DR. O'LEARY: We have endeavored to attribute generalized telangiectasia to syphilis as suggested by Ehrman and Stokes. Dr. Becker, in a recent study of six of the cases, was unable to confirm the impression that syphilis

or tuberculosis were causative factors. He felt that the etiologic classification of neurogenous and mechanical as the result of inflammation and toxic factors, explained all of the cases. It was noted, however, that in the majority of the well studied cases there was a multiplicity of conditions, and it was difficult to attribute the telangiectasia to any single finding. No doubt a constitutional predisposition of the vascular system is to be found in patients presenting this dermatosis.

DR. FOERSTER: The impression I have had was that these were expressions of a process such as syphilis, tuberculosis or leprosy.

DR. COLE: We had the privilege of seeing one of these cases develop right under our eyes. This man came to us first with a primary and secondary syphilis. We treated him for about three years, and apparently he was cured. The blood Wassermann reaction and lumbar puncture did not show anything. He went to Europe and remained a couple of years. When he returned he came to our office immediately, worrying about some trouble on his skin. He took off his clothing and showed a good example of this condition, especially over the extremities. Examination did not reveal any other manifestation of syphilis in any form. We gave him more treatment, but it had no effect.

DR. ORMSBY: At the sixth international congress held in New York in 1907, Ehrmann read a paper on this subject and recorded a group of cases occurring in connection with syphilis. The pictures he showed at that time were identical in appearance with that in this case. This type of syphilis has since become known as Ehrmann's livedo racemosa. In the last few years a number of cases have been reported abroad as livedo reticularis, which have occurred in connection with either tuberculosis or syphilis. In 1916, Adamson recorded a group of these in which "livedo annularis" of the inflammatory type occurred in connection with erythema induratum. In children and young adults livedo reticularis may occur as a comparatively normal condition and is not inflammatory. Inflammatory livedo reticularis may occur as an expression of syphilis or tuberculosis, and it appears that in the present case tuberculosis is the underlying affection.

DR. EBERT: While the Wassermann reaction and history are negative, there is still a possibility that the patient is syphilitic. For tuberculosis we will have to make a much more complete examination.

The sections show organic changes in the blood vessels of the subcutaneous tissue. I think when I run a large series I will be able to obtain something definite. Some writers claim that there are no organic changes. I feel certain that some organic change will be shown when more sections are run.

A CASE FOR DIAGNOSIS. Presented by DR. SCHMIDT (by invitation).

A 5 year old boy had a cutaneous disorder that had been present more or less actively during the past eight months. When first seen the lesions were situated on the ears, cheeks and forehead, and consisted chiefly of rather large, flaccid bullae, some of which were situated on a mildly inflammatory base. New lesions had appeared from time to time. At the time of presentation there were several superficial bullae, a few crusted areas and some superficial excoriations occupying the areas above described. There were no scars or other sequelae of previous lesions.

DISCUSSION

DR. ORMSBY: The disorder presents the clinical appearance of impetigo. I saw the case in April, and without hesitation said it was impetigo. The patient has been having these bullous lesions all the time since then, in spite of treatment. The history suggests the possibility of pemphigus.

DR. SENEAR: I recall a case of a boy who gave a similar history of bullous eruption about the mouth. He had consulted some one else before we saw him. The condition cleared up, and then recurred. He was under observation in Dr. Pusey's office for from eight to ten weeks, and during that time ran the same course as before. We were able to clear up the eruption, but it recurred immediately. We looked on the condition as a bullous impetigo. That boy did not have the lesions in the mouth. This particular case did not suggest to me the hydroa group.

ACRODERMATITIS CHRONICA ATROPHICANS. Presented by DR. ROSENBERG.

A man, aged 21, had a disorder of two years' duration. The first change noted in the skin was a bluish-red discoloration 3 cm. in diameter situated over the outer malleolus of the left leg. This lesion became inflammatory, and the process spread upward, involving the skin of the leg, thigh and gluteal region of the same side.

At the time of presentation, the skin over the affected area was bluish red and markedly atrophic. Typical wrinkling occurred over the knee. The skin over the dorsum of the left foot was white, hardened and firmly attached to the underlying tissue. There were no subjective symptoms except a feeling of tightness in the skin over the ankle. A general examination revealed nothing abnormal. The Wassermann reaction was negative.

DISCUSSION

DR. COLE: I thought it was a very nice case of scleroderma of the chronic atrophic type.

DR. FOERSTER: The unusual feature in this patient was the localization on one side. The condition had advanced to a considerable extent before it began to appear on the other leg.

DR. ZEISLER: To me it was remarkable on account of the youth of the patient. Most of the cases we have seen have occurred in older people.

DR. ORMSBY: A purely asymmetrical idiopathic atrophy does occur occasionally. These cases are more likely to be syphilitic in character and not true idiopathic atrophy or acrodermatitis chronica atrophicans.

URTICARIA. Presented by DR. SENEAR and DR. WIEN.

This patient was first seen about two weeks ago, at which time he had an urticarial eruption, many of the lesions being annular or herpetiform. The condition had existed for ten weeks. There was just a little suggestion of something unusual as contrasted with an ordinary urticaria. The possibility of its being a drug eruption had been considered, but the history was negative from that standpoint. Ten days ago, he was given a large dose of phenolphthalein, and the next day he developed a fresh group of urticarial lesions. All of them took on the appearance which had been present before, according to the history. They started with the appearance of a herpes iris lesion, and as the urticarial margin advanced, a petechial hemorrhage appeared in the center, so that there were in some of these lesions eight or ten zones present, depending on the growth and activity of the process. There was one lesion which showed the early discoloration which is followed by petechial hemorrhage.

He seemed to present an interesting borderline case between simple urticaria due to phenolphthalein and a typical polychromatic lesion, because these lesions did go through a definite polychromatic stage. He was given 5 grains (0.32 Gm.) of phenolphthalein two days before presentation, but the response had been a little slower.

Later there was obtained a history of his having taken some patent laxative tablets of a new variety two days before the eruption came on. The present lesions had exactly the same appearance as those first noticed, but they had not yet quite reached the petechial stage.

DISCUSSION

DR. FOERSTER: I saw a widespread phenolphthalein eruption a few months ago, with circular lesions of fixed type with pigmentation, and at least 4 inches (10.1 cm.) in diameter, on the trunk, arms and legs. We were certain that the eruption was caused by phenolphthalein, although the patient under close questioning said he had never taken it; but he was in the habit of stopping at drug stores and getting some fluid extract of cascara without prescription. He had a small amount left of the last supply, and on chemical examination it was found to contain phenolphthalein, which had been added to fortify the cascara.

DR. ZEISLER: I recently saw a case of giant urticaria following the ingestion of large doses of agar-agar with phenolphthalein.

SERPIGINOUS CHANCROID. Presented by DR. STILLIANS.

A mechanic, aged 33, in 1913 had an ulcer on the glans penis followed by buboes in the groin. As the buboes healed, new ulcers appeared. He had not been without ulcers for more than a short time since then, and the ulcers are very tender. During the past two years, he has had five negative Wassermann tests. He had pneumonia at the age of 7, but his chest is now clear. The ulcers were deeper and much more indolent three weeks ago than they were when presented, for he had had antisyphilitic treatment. The ulcers on the leg were so painful that he could scarcely walk. Biopsy did not show anything definite. The possibility of a granuloma inguinale had been considered.

DISCUSSION

DR. OLIVER: I think Dr. Stillians' suggestion that it possibly might be a granuloma inguinale is the best, in spite of its location. There is a definite indurated papillomatous edge to the lesion.

DR. ORMSBY: A few years ago, I saw an ulcerating lesion of this type beginning in the usual way. It followed a ruptured bubo in the groin and spread up over the abdomen and down over the thigh, and the lesions on the thigh were similar to these. Twenty-five or thirty years ago serpiginous chancroids were seen occasionally. In view of the result of treatment in this particular case, chancroid appears probable.

DR. ZEISLER: I would suggest the use of mild silver protein crystals.

DR. OLIVER: Three years ago, at the annual meeting, we showed a case of serpiginous chancroid on the thigh extending up onto the abdomen. The patient was an Armenian. A number of methods of treatment were suggested, and finally Dr. Stokes suggested that we apply a radium plaque for a few minutes to the border of the lesion. We did that, and it healed within two or three weeks. We applied it long enough only to irritate the edges of the lesion.

DR. STILLIANS: This case was in the surgical service, where the patient was treated for syphilis, without result. We thought of granuloma inguinale, but the history is not in accordance with granuloma inguinale. It did not involve the inguinal folds appreciably. It progressed downward, and the ulcer was not filled with granulations as it is now. There was evidence of indolent granulations, and the border was undermined in some places. The diagnosis of syphilis had been made many times, and the patient had received a great

deal of antisyphilitic treatment, with temporary benefit, but other ulcerations have occurred. When I presented him I made the diagnosis of chancroid. We used tartar emetic, thinking somewhat of a diagnostic test, but with the idea that tartar emetic effects other conditions besides granuloma inguinale. There have been efforts to find Donovan bodies, but without success. He has certainly made a great deal of improvement on six doses of tartar emetic.

We tried the mild silver protein crystals at the Cook County Hospital, without result and much complaint of pain from the treatment. We have not used iodoform in this case.

NEW YORK ACADEMY OF MEDICINE, SECTION ON DERMATOLOGY AND SYPHILIS

Regular Meeting, Feb. 2, 1926

FRED WISE, M.D., *Chairman*

A CASE FOR DIAGNOSIS: ERYTHEMATOBULLOUS ERUPTION. Presented by DR. HOWARD FOX and DR. E. R. MALONEY.

H. D., a man, aged 31, born in Russia, presented an eruption of the face, neck, scalp, chest and extremities of two months' duration. It consisted of various sized erythematovesicular and bullous patches, with considerable evidence of scratching. Lesions on the nose and cheeks showed the configuration seen in lupus erythematosus. The Wassermann test was negative.

DISCUSSION

DR. ABRAMOWITZ: The man presented a bat-wing erythematous and scaly patch on the flush area of the face. The bullous lesions on the face, wrists, elbows and knees, with large erosive patches on the left palate, are more in favor of the bullous type of erythema multiforme than a lupus erythematosus.

DR. POLLITZER: In my opinion, it is not a lupus erythematosus. The man presents several irregular erythematous patches on the face and on the trunk and extremities. On many of these lesions there are blebs filled with a clear serum; around the umbilicus there is a cluster of blebs. On the trunk and extremities there are many eroded areas from which it is evident that the epidermis has been removed, as from the rupture of a blister. There are a few red and pigmented spots where a former lesion existed, as if a bleb had ruptured and healed. The lesions all itch intensely. The elementary lesion in this case is a bleb, arising sometimes on the unchanged skin, sometimes on an erythematous patch. The diagnosis rests between pemphigus and erythema bullosum, and I may add that I look on every case of erythema bullosum with suspicion; in my experience, most cases regarded as erythema bullosum have proved to be pemphigus.

DR. BECHET: The lesions on the face are not, in my estimation, those of lupus erythematosus. The "butterfly" lesion on the nose has a distinct vesicular edge; there are no adherent scales or petulous hyperkeratotic follicular openings; there are bullae on the umbilicus. It is a bullous dermatitis, whether erythema multiforme bullosum or a pemphigus is at present somewhat difficult to determine. However, the presence of considerable erythema and the small size of the bullae would favor erythema multiforme bullosum.

DR. HOWARD FOX: Portions of the eruption had a striking resemblance to lupus erythematosus. This would have to be excluded by the presence of bullae and the rather extensive itching. I think the diagnosis of bullous erythema multiforme is the most probable one.

(1) Ioderma; (2) Acute Arthritis (Syphilitic). Presented by Dr. Cannon.

E. G., a white man, aged 46, gave a past history of "spasms" since birth. He walked at 5 years of age, and had had deafness since childhood. He had had a chancre at 24 years of age, and had received antisyphilitic treatment. In September, 1925, he began to have pain and swelling in the joints of the right foot; gradually, both ankles, both wrists, and the right knee became involved. About two months after the onset of the trouble, an eruption appeared on the hands, feet and perineal region, which the patient treated with iodine.

Examination revealed a papular eruption over the hands, wrists and feet below the ankles and over the perineal region. Each papule had a brown scab on it, which was not purulent; it was of a warty character. The Wassermann and urine tests were negative. The blood count showed 60 per cent hemoglobin; red blood cells, 4,086,000; white blood cells, 8,600; polymorphonuclears, 65 per cent; small mononuclears, 15 per cent; large mononuclears and transitionals, 20 per cent. Roentgenograms of the extremities were reported as (1) atrophy of head of the last phalanx on the right side; (2) cortical irregularities on the remaining phalanges, with localized thickenings; (3) osteoporosis of the head of left fourth metatarsal and the bases of the phalanges of the left foot.

The patient had received antisyphilitic treatment and oil dressings and chrysarobin (10 per cent), without improvement.

DISCUSSION

Dr. Parounagian: It is hardly possible to make a diagnosis on such a brief examination. Ioderma is a good diagnosis, but we could not see the body, and the patient would have to be examined thoroughly.

Dr. Wise: The man had a distinct atrophy of the skin of the hands.

Dr. Abramowitz: The patient presents a marked hyperkeratosis of the soles, which is of either a syphilitic or a gonorrheal nature. The eruption on the hands is a pustular crusted eruption on a bluish-red inflammatory base. This appears to resemble more an ioderma. The atrophy of the skin of the hands may be accounted for as a symptom occurring in keratoderma blennorrhagicum. He gives a history of arthritis, and his genito-urinary tract should be investigated for evidences of a gonorrheal infection.

Dr. Chargin: I believe the patient shows all the diagnostic features of keratoderma blennorrhagicum. It may be recalled that the disease is characterized by two types of lesion—a papulovesicle (really not a vesicle), and a generalized patchy keratoderma with scaling; the latter is nothing else than an aggregation of small papules of the first variety. The patient shows both types of these lesions. Moreover, he shows typical involvement of the nail beds, with loss of nails and an associated arthritis in numerous joints. He admitted a history of gonorrhea. I think an investigation will prove this case to be one of keratoderma blennorrhagicum.

Dr. Rostenberg: I am of the same opinion as Dr. Chargin, that it is a case of keratoderma blennorrhagicum, for the keratotic lesions which the man presents and their distribution, and also the appearance of the nails, fit into that picture.

Dr. Wolf: It has been our good fortune at the hospital to see several similar cases. In certain features, this case has a strong similarity to psoriasis. This man has typical psoriatic patches on the elbows, and on close scrutiny of the lesions on the hand one could see that several of them were typically

psoriatic; also many cases of keratoderma blennorrhagicum turned out to be psoriasis. Unless this can be shown to be a drug eruption, I believe it will prove to be a psoriatic eruption.

DR. CANNON: The man had absolutely no skin eruption until he applied iodine over the joints, which application was followed by an acute dermatitis with bullae and marked crusting; the crust dried in horny papular elevations, beneath which warty granular lesions formed. On several occasions his urine showed very strong reaction to iodine. He had no history of gonorrhea.

DR. WOLF: Was there an eruption antedating the iodine application?

DR. CANNON: No; the iodine was applied for an arthritis.

DR. WISE: It would be interesting to have a further report on the case at the next meeting.

MILIARY LUPUS OF FACE AND SCALP. Presented by DR. ELLER from the Vanderbilt Clinic.

O. D., a man, aged 40, had previously been presented at the New York Dermatological Society (Jan. 26, 1926) with a tentative diagnosis of dermatitis medicamentosa, which clinical diagnosis received considerable support in the discussion. The biopsy demonstrated the diagnosis of miliary lupus. A second Wassermann blood test was negative.

DISCUSSION

DR. ROSTENBERG: I saw this man a few days ago at a local society, and he then showed a number of broken-down pustular lesions on the scalp; he also gave a history of having taken iodine, and my diagnosis therefore was that it was an iodine eruption.

DR. CHARGIN: Without the evidence furnished by the pathology in this case, and purely on clinical grounds, I would hesitate to make the diagnosis of lupus miliaris disseminatus. We had here before us a splendid example of lupus miliaris disseminatus, and it certainly does not bear any resemblance to this case. In lupus miliaris disseminatus the lesions are much smaller, and they rarely pustulate. Pustule formation is a prominent symptom in this patient. In lupus miliaris disseminatus the lesions are isolated; in this case, especially in the scalp, they are conglomerate. The ulcerations that this patient presents are not observed in lupus miliaris disseminatus. Age also is a factor which must be taken into consideration. Lupus miliaris disseminatus is observed in younger persons. The diagnosis that strikes me as most likely is an ioderma. The pustules on the cheek, forehead and scalp closely resemble those observed in iodide eruptions. The pathologists report of the epithelioid and giant cells is not of itself sufficient to warrant the diagnosis of lupus miliaris disseminatus, for they may be observed in nontuberculous conditions (acne rosacea), and unless the arrangement is definitely that of tubercle, the diagnosis of lupus miliaris disseminatus in this case may with propriety be questioned.

DR. WISE: Dr. Satenstein examined the histologic specimen, and it was unmistakably tuberculosis. No guinea-pig inoculations were made, but there is no doubt about the microscopic diagnosis.

DR. HOWARD FOX: When I saw this patient tonight I was not aware that I had seen him before, such a change having taken place in the appearance of the eruption. He was shown at the New York Dermatological Society a few days ago, and there was a general agreement that the eruption was due to the

ingestion of either iodides or bromides. That diagnosis is now out of the question, and I think without doubt the case is clinically one of lupus.

DR. ABRAMOWITZ: The picture this patient presented when he first appeared at the clinic was strongly suggestive of an ioderma or a bromoderma. The lesions were distributed on the face, neck and scalp. They were isolated, mostly pea sized and a bluish red, surmounted by a pustule. On the frontal portion of the scalp many of the lesions were closely grouped, and scarring was present. It was on account of the scarring that Dr. Wise and Dr. Rosen gave the condition the diagnosis of miliary lupus. The pathologic report of Dr. Satenstein that the section showed a typical lupus structure was a surprise to me, as in spite of the scarring present I did not think it was lupus. I think it is important to observe the patient further and carry out tuberculin tests and animal inoculation to confirm the tuberculous nature of these lesions.

A CASE FOR DIAGNOSIS: VERRUCCA PLANA (?). Presented by DR. HOWARD FOX and DR. E. R. MALONEY.

S. S., a typist, aged 19, born in the United States, presented an eruption of three months' duration on the chin and around the corners of the mouth. It was made up of small pinpoint to pinhead, fairly round, shiny papules. These papules were confluent, making a large patch at either corner of the mouth. They were dry and in places slightly scaly. There were no subjective symptoms other than a slight itching at times. The color was reddish yellow. There were some ill-defined areas on the mucous surface of the lips (commissures), suggesting lichen planus. There was no history of the use of external irritants, such as cosmetics.

DISCUSSION

DR. POLLITZER: I should say the lesions were papulovesicular, not simply minute papules, but highly succulent papules which are on the verge of becoming vesicles. They are grouped around the mouth exclusively; on the mucosa are some erythematous and superficial erosive lesions. I believe we are dealing with a dermatitis venenata produced by some external application. I first thought the patient was in the habit of bringing her face in contact with some flower — primrose, etc.; but this she denied. The next suggestion was the possibility of the condition depending on some application, and I am inclined to believe that that was the cause. The distribution and the nature of the process strongly suggest a dermatitis venenata due to some local application, such as a tooth paste or mouth wash.

DR. CHARGIN: I would suggest the diagnosis of verruca plana juveniles. The lesions are somewhat too red, but in other respects correspond. They are round or polygonal in outline, flat on the surface, and are confluent — all points in favor of that diagnosis.

DR. WOLF and DR. SPIEGEL agreed with Dr. Chargin's suggestion of juvenile warts.

DR. ABRAMOWITZ: The lesions are vesicular in nature not papules. I do not think they are juvenile warts, for there are leukoplakia-like lesions on the mucous membrane back of the commissure of the mouth. That would be rather unusual in juvenile warts, and yet I cannot accept the diagnosis of dermatitis venenata, for the gums and the rest of the lips are normal, and I cannot conceive of a dermatitis venenata being so restricted. It might possibly be a feigned eruption.

Dr. Howard Fox: We saw this patient at the clinic for the first time about ten days ago. Since then there has not been the slightest change in the eruption that we could detect. This, I think, speaks against a dermatitis due to any external irritant and is against the probability that these lesions are vesicular. The eruption is not lichen planus, lichen nitidus nor adenoma sebaceum. The diagnosis of flat warts seems most probable, though it is not a typical case. The so-called follicular seborrheic dermatitis is a possibility. The patient is being given protiodide of mercury internally, and a further report will be made on her case.

Dr. Bechet: Is there any history of excessive use of cosmetics? The appearance of the lesions is not unlike those occasionally occurring from the excessive use of cosmetics.

Dr. Maloney: I cannot add anything to what Dr. Fox has said, but we must have missed the vesicular eruption that Dr. Pollitzer and Dr. Abramowitz spoke of. We thought it was a case of verruca planum. I do not believe any of us thought of dermatitis venenata.

Macular Atrophy of Lichen Planus Atrophicus. Presented by Dr. Howard Fox and Dr. E. R. Maloney.

A. M., aged 27, a white woman, born in the United States, presented diffuse areas of atrophy of the skin of the chest, abdomen, back of the neck and axillae, of six months' duration. The primary lesion in these atrophic areas seemed to be a macule of pinhead size, many of which had a small follicular opening in the center. These lesions were confluent and formed patches and lines of various sizes, which were shiny in appearance. The patient complained of a sense of contraction in the affected areas. An examination of scrapings from the lesions was negative for fungus. The Wassermann test was negative. The report of a histologic examination by Dr. J. Frank Fraser was as follows:

"The epidermis is thin and presents a wavy appearance due to the presence of numerous invaginations of the corneous layer into the stratum mucosum (an appearance frequently seen in the plain papule of lichen planus). These invaginations are independent of the hair follicles. In the corium, the lymphatic vessels are generally dilated. There is a very slight perivascular round cell infiltration which is mainly confined to the papillary layer. The coil glands and pilosebaceous follicles apparently are normal. The structure of the papillary layer seems to be undergoing atrophic change, while the deeper collagen bundles show compensatory hypertrophy.

"Diagnosis: The histopathologic picture is consistent with the clinical diagnosis of lichen planus atrophicans."

DISCUSSION

Dr. Rostenberg: On account of the lesions appearing in striate form in a few places and the patient being a stout woman, I take the lesion for striae atrophicae.

Dr. Pollitzer: I thought it was a macular atrophy.

Dr. Fraser: Microscopic examination shows a very mild cellular exudate in the upper layers of the corium, atrophy of the papilae, and a slight degree of compensatory hypertrophy in the collagen fibers. There is no evidence of fibrous replacement such as is seen in the so-called white spot disease. The

histologic picture supports the diagnosis of macular atrophy representing the end process of some inflammatory condition, possibly lichen planus.

DR. WISE: I would favor the diagnosis of dermatitis lichenoides chronica atrophicans in its earliest stages.

DR. MALONEY: We first saw the case two months ago and made the diagnosis of macular atrophy. The patient then disappeared from observation, but came back a week ago, and owing to the fact that she complained of a great deal of itching, the diagnosis of atrophic lichen planus was suggested.

A PROBABLE SUPERINFECTION OF HUSBAND AND WIFE. Presented by DR. PAROUNAGIAN and DR. MASON.

C. C., aged 35, and his wife, aged 27, were married July 4, 1920, and had a daughter 4 years old and a baby boy 11 months old. The wife had had no miscarriages. The husband had been exposed with a stranger about two weeks prior to marriage. One week after the wedding he developed a urethritis, for which he had no treatment then. In 1923, both were treated at the Bayonne Hospital for syphilis, as they were said to have each had a generalized eruption, and each received seven injections into the arm of "some yellow fluid."

On Jan. 26, 1926, the husband applied to the clinic with numerous lesions on various parts of the body. He had a marked circular ulcerating lesion on the middle of the forehead, which was regarded as a probable initial lesion. He had a number of lesions on the genitals; moist papules on the scrotum; squamous, papular, pustular and nodular lesions on different parts of the body. His Wassermann test on admission was + + + +; dark-field examinations on the forehead and genital lesions were repeatedly negative.

The next day, Jan. 27, 1926, the wife and her two children came to the clinic, as requested. The children were examined clinically, and no evidence of active, acquired or congenital syphilis could be detected. Examination of the wife showed the body free from lesions. Three distinct initial lesions were found on the right labium. A dark-field examination was positive, and her Wassermann test on that date was reported + + + +. She was immediately given an injection of neo-arsphenamine.

The mentality of both husband and wife was below par. Neither could recall how long each had had the condition. So far as obtainable, there was no history of extramarital exposure on the part of either man or wife. Undoubtedly the wife's infection was more recent than the husband's. The only explanation seemed to be that possibly the husband was infected extragenitally (forehead lesion?), and infected his wife, who probably had lost her immunity.

MYCOSIS FUNGOIDES. Presented by DR. HOWARD FOX and DR. MALONEY.

A. V., a man, aged 36, had previously been presented at the Atlantic Dermatological Conference, Dec. 16, 1925. The duration of the condition was five years; it was in the tumor stage, with lesions on the face, trunk and arms. The patient was improving under roentgen-ray treatment.

DISCUSSION

DR. CHARGIN: This patient was presented by me for diagnosis at the April meeting in 1923. At that time he showed large erythematous, scaly patches which suggested parapsoriasis en plaque, generalized tinea and mycosis fungoides in the premycotic stage. Most of the members who discussed the case regarded it as mycosis fungoides in the premycotic stage.

LUPUS ERYTHEMATOSUS DISSEMINATUS. Presented by DR. HOWARD FOX and DR. E. R. MALONEY.

M. F., a woman, aged 26, born in Venezuela, presented an eruption on the face, chest, neck and hands of two months' duration. The eruption had appeared in all these locations at about the same time. On the face there was an erythematous scaly patch covering the nose and cheeks, arranged in butterfly shape. There were also many various sized patches of the same character over the jaws, chin and back of the neck. There were multiple guttate, scaly patches on the left side of the upper part of the chest at the level of and below the clavicle. Several similar lesions were present on the dorsal and palmar surfaces of the fingers of both hands.

BAZIN'S DISEASE. Presented by DR. CANNON.

E. W., a colored girl, aged 10, had areas of brownish discoloration appearing ten months previously, followed by itching, nonpainful papules, some of which disappeared; others broke down, and have remained ulcerated.

On examination she presented several brown papules and a few areas of chronic ulceration on both legs. The Wassermann test was negative, as was also a roentgenogram of the chest. The tuberculin test with old tuberculin was positive in twenty-four hours, with a rise in temperature. The patient was treated with ammoniated mercury, 2 per cent, with no improvement.

ARSPHENAMINE DERMATITIS. Presented by DR. CANNON.

L. W., colored, aged 45, had a condition which started six weeks before presentation, after three injections of arsphenamine, the last of which went into the subcutaneous tissues. It was followed by pain, itching and dermatitis, localized at first to the site of the injection, but becoming generalized in forty-eight hours.

The patient exhibited a diffuse, dry, scaly, papular eruption over the entire body. The scales were dark gray and were easily removable. There were several pustular lesions on the thighs. The Wassermann test was negative. The urine showed the slightest possible trace of albumin, with granular casts and an increased number of white blood cells. The blood count was: hemoglobin, 80 per cent; red blood cells, 4,520,000; white blood cells, 15,400; with 70 per cent polymorphonuclears, 14 per cent small mononuclears and 10 per cent large mononuclears and transitionals.

Sodium thiosulphate was given by mouth and intravenously, corn starch baths, potassium permanganate baths and staphylococcus vaccine, followed by considerable improvement.

PEMPHIGUS. Presented by DR. CANNON.

Mrs. M. D., aged 42, colored, had a scaling eruption of the skin which started in May, 1923. The condition began at the onset of the menopause as bullae on the back, which ruptured and dried up. The scalp, face and chest were next involved, and finally the arms. She suffered with itching and pain.

On examination the patient presented a generalized eruption with crusting and many large loosely adherent scales; the underlying skin was red and edematous, with many bullae. There were a few small ulcerative lesions of the inside of the lips. Conjunctivitis was marked; the pupils were equal and dilated, but failed to react to light. The liver and spleen were palpable. The Wassermann reaction was negative. The urine and stools were negative.

The basal metabolism was plus 40. The blood count showed: hemoglobin, 80 per cent; red blood cells, 4,512,000; white blood cells, 11,000; with 60 per cent polymorphonuclears, 17 per cent small mononuclears, 11 per cent large mononuclears and transitionals, 2 per cent eosinophils, and 1 per cent mast cells. The blood chemistry showed urea nitrogen from 9 to 19 mg. per hundred cubic centimeters; blood sugar, 1 per cent. The blood culture was negative.

The patient was treated with iron cacodylate, salicylic oil, corn starch, naftalan and potassium permanganate and sodium bicarbonate baths. There was no definite improvement except with the naftalan.

DISCUSSION

DR. ABRAMOWITZ: There is no question about the diagnosis. I should like to know whether any one has had any favorable experience with iron citrate and coagulen.

DR. CANNON: I have used the Davis treatment of iron intravenously and coagulen intramuscularly in twelve cases of pemphigus, and I have never seen marked improvement in any of the patients. The only remedy that has done much good in many of the cases has been a thorough alkalinization of the individual with sodium salicylate, sodium bicarbonate and sodium citrate.

DR. WISE: It is rare to see pemphigus in a colored person.

DR. MALONEY: We had a case three weeks ago in a colored woman — not a full-blooded negress, but a mulatto.

FOLLICULAR PSORIASIS. Presented by DR. WOLF.

J. McG., aged 7, born in the United States, three weeks prior to presentation had a scaly patch on the left elbow, noticed by his mother. The lesion was characteristic of psoriasis. One week later, a diffuse eruption appeared on the dorsolumbar region, consisting of shiny and slightly scaly follicular papules. One lesion, circular in outline, resembled a tinea. On the trunk were isolated pinhead psoriatic papules.

DISCUSSION

DR. ABRAMOWITZ: Some cases of psoriasis are exceedingly difficult to diagnose. This child presented an annular vesicular patch above the left buttock which looked more like tinea than any other condition, and I would incline to that diagnosis rather than to psoriasis. The other lesions on the body may be a trichophytid.

DR. WOLF: Dr. Abramowitz's observation is correct if taken by itself. The lesion on the dorsolumbar region would suggest tinea, but considering the history given by the mother, that the first lesion appeared on the elbow — a typical psoriatic lesion — and fitting that with the lesion on the back, and also the isolated typical scaly, micaceous scaling papules on other parts of the body, it would seem that psoriasis is the diagnosis. Although no tinea examination was made, we felt reasonably sure of the diagnosis. However, we will have an examination made for tinea.

VARICOSE ULCERS. Presented by DR. CANNON.

J. T., a white man, aged about 50, presented a condition which started on the left leg twenty years previously, and on the right leg ten years later.

Examination showed a large ulcer on the left leg covering most of its lower portion, with the base dirty and sloughing and the lower edge heaped up; the left foot was enlarged and showed hyperkeratosis. Similar ulcers involved the middle and lower thirds of the right leg without enlargement of the foot. The Wassermann test was negative, as was also the examination of the urine. The blood chemistry showed urea nitrogen 19 mg. per hundred cubic centimeters, blood sugar 0.15 per cent. A biopsy of the granulating skin showed chronic granulation tissue.

Wet boric acid and permanganate dressings caused no improvement.

DISCUSSION

DR. WISE: We would like to elicit a discussion on the possibility of malignancy. The histologic tissue report was only granulation structure, but whether or not this was taken from a favorable spot has yet to be determined.

DR. FRASER: In some respects, the clinical features suggest sarcoma. It is possible that a further histologic examination may reveal malignancy.

DR. CANNON: The case was studied with malignancy in view. Within the past ten years we have had several cases in the City Hospital, and sections taken for biopsy study have always shown only a simple inflammatory process with the formation of granular tissue. We will have sections made from other parts of the leg in this case. No later evidence of malignancy has ever developed in any of these cases, so far as we know.

LUPUS ERYTHEMATOSUS OF UNUSUAL APPEARANCE. Presented by DR. BECHET.

J. M. A., a colored man, aged 29, had previously been presented at the January meeting of the New York Dermatological Society.

DISCUSSION

DR. ELLER: I agree with the diagnosis.

DR. ROSTENBERG: I also agree with the diagnosis. I have recently seen a patient with typical lesions of lupus erythematosus on the face and the same kind of atrophic patches on the scalp as shown in this case.

DR. BECHET: The unusual features are the deep scarring on the scalp, the pitlike scarring under the right eye and the crusted lesion on the lower lip. The lesion on the left ear is typical of lupus erythematosus.

VERRUCAE PLANAE JUVENILES. Presented by DR. ABRAMOWITZ. (From the Department of Dermatology and Syphilology, Vanderbilt Clinic.)

C. W., a girl, aged 5, came to the Vanderbilt Clinic, Jan. 28, 1926, with an eruption on the left side of the cheek, of one month's duration. The mother said that the eruption began as blisters, followed by crusting. She applied salve, with some improvement. On the lower part of the left cheek was a group of papular lesions about 1½ by 3 inches (3.8 by 7.6 cm.) in size. The papules were slightly raised, erythematous, shiny and surrounded by an erythematous areola. They ranged in size from that of a pinhead to that of a millet seed. In places they were confluent and resembled groups of vesicles.

The patient was given mercury internally, and the lesion on the left cheek disappeared in five days.

CARCINOMA OF THE FLOOR OF THE MOUTH. Presented by DR. ELLER. (From the Department of Dermatology and Syphilology, Vanderbilt Clinic previously shown at Academy of Medicine, Section on Dermatology.)

Mr. M., aged 55, presented a fungating, fleshy-like mass on the floor of the mouth extending to the gums on the right lower jaw. There were no palpable glands. The teeth in the lower jaw were necrotic, and these were all extracted at the oral surgery department, where a roentgenogram of the lower jaw revealed no involvement of the bony tissues. The patient's general health was apparently good. Radium emanation seeds were buried into the growth, 1 cm. apart and 1 cm. deep. Eight seeds were used, each containing one millecurie of radium and erythema doses of roentgen ray filtered through 3 mm. of aluminum were given to the adjacent glands on both sides of the neck. A microscopic examination of the growth revealed it to be a prickle cell carcinoma.

It was proposed to removed the entire mass by electrocoagulation two weeks after the burying of the emanation seeds and then to bury more emanation seeds into the tissue remaining.

SARCOID. Presented by DR. LEVIN.

Mrs. N. was previously presented by Dr. Levin at meetings of the section, and at the New York and Manhattan Dermatological Societies. The diagnosis had been confirmed, and the case was again presented to show its similarity to one presented by Dr. McCafferty at the January meeting.

DISCUSSION

DR. MCCAFFERTY: This case is almost similar to the one presented by me at the last meeting. My case was presented as lupus vulgaris erythematoides, but during the discussion Dr. Pollitzer suggested the possibility that it was one of Boeck's sarcoid. One or two other members suggested the diagnosis of the Darier-Roussy type. In the meantime I have consulted the literature, and histologic examinations have been made. The sections have been carefully examined by Drs. Fraser and Losee. Dr. Fraser reported it as a typical Boeck sarcoid. Clinically, the difference between the Boeck and the Darier-Roussy type of sarcoid is that there are more lesions in the Boeck type; the color varies from yellowish brown to purplish red in the Boeck type, whereas the Darier-Roussy type is usually uniform in color and a purplish red; the Boeck type protrudes above the skin slightly and is reasonably soft on palpation and does not extend so deeply into the derma, whereas the Darier-Roussy type is on a level with the skin, is firmer in consistency and extends more deeply into the derma on palpation. Neither of these lesions has any subjective symptoms. I would regard the case presented by Dr. Levin as one of the Boeck type of sarcoid because of the number and location of the lesions, their slight elevation above the skin, their consistency, color and superficial depth.

DR. WISE: This same patient came to the Vanderbilt Clinic five or six years ago, making five or six visits at long intervals. If she had submitted to regular treatment, she would have had a chance of getting rid of her lesions.

HEMANGIOMA AND LYMPHANGIOMA. Presented by DR. ABRAMOWITZ.

Florence C., aged 8, of Elizabethport, N. J., born in the United States, a patient of Dr. S. Oleynick at the Skin Dispensary of St. Michael's Depart-

ment, Newark, N. J., had lesions which started above the left eye as a birthmark, when the patient was 2 weeks old. A physician was consulted, who treated her with ointments. No application of acids was made, nor was there any treatment with electric cautery, carbon dioxide snow or rays. There had been no treatment during the last four years.

The left part of the forehead and scalp, the upper part of the left cheek, the lips, the left side of the neck, the mucous surface of the lips and hard palate were covered with annular and serpiginous patches which were involving the skin and subcutaneous tissues with visible distended blood vessels, yellow pigmented and atrophic spots. The lesions were gradually spreading, but had been stationary during the last few years.

DISCUSSION

DR. POLLITZER: As far as I could make out the story from the mother, the child had a rather extensive nevus—a lymphohemangioma—which from time to time developed superficial ulcerations or erosions. These may have been the results of an injury in a skin that was not very resistant. Then a crust would form, and when the crust came off as the result of treatment with an ointment which was given to her, the skin had healed over and the original lesion was replaced with a scar. This is occasionally the history of a vascular nevus—a spontaneous cure due to injury. It is rather unusual to find such an extensive lesion cicatrizing as the result of acidental injury.

DR. ABRAMOWITZ: I examined the patient for the first time this evening with Dr. Oleynick. I was strongly impressed with the fact that there was an unusual amount of scarring. The mother was unable to tell us how this was produced. Some salve had been used, but no roentgen ray treatment or radium. The lesion on the lip and chin was more of the nature of a hemangioma-lymphangioma, but the hemorrhagic puncta, the pigmentation and the telangiectasis present on the forehead and scalp with scarred and atrophic areas were somewhat suggestive of an angioma serpiginosum. I am not quite satisfied as to the diagnosis made by the members of a healed angiomatous lesion; if it is that, it is of an unusual appearance.

DR. HOWARD FOX: We have previously discussed the question of spontaneous disappearance of hemangiomas. Such lesions are common in children and rare in adults. Many of these lesions are never treated, and the conclusion seems evident that they undergo spontaneous involution. I think that is what has happened in this case.

DR. WISE: I am in entire agreement with what Dr. Pollitzer and Dr. Fox have said. The lesion is a nevus undergoing spontaneous involution.

RHINOPHYMA IN A WOMAN. Presented by DR. BECHET.

A. J., a woman, aged 66, from Dr. Whitehouse's service, said that she had had "pimples" and redness of the nose and cheeks for thirty years. The nose began to enlarge twenty-five years prior to presentation. When first seen, she had a diffused redness over the cheeks and nose, and on the latter were hypertrophic, lobulated masses with much general enlargement, the organ being more than twice its normal size. A review of the standard authorities revealed the rarity of the hypertrophic types of rhinophyma in women.

PALMAR AND PLANTAR SYPHILIDS IN A TERRIARY SYPHILITIC. Presented by DR. PAROUNAGIAN and DR. MASON.

G. Z., aged 42, had had nonitching, slightly scaly patches on the palmar aspects of the hands and the plantar surfaces of the feet, which had been present seven and five years, respectively. Her history was negative. She had been married for fifteen years, and had had two children; one was living and healthy, the other died in infancy. Her Wassermann test was ++++ on Jan. 8, 1926.

The case was presented on account of the symmetry of the lesions in the tertiary stage. No treatment had been given prior to presentation.

SCROFULODERMA. Presented by DR. CANNON.

E. W., aged 15, colored, had a condition that began three years prior to presentation as a swelling on the right side of the neck, which after three months was operated on. The incision healed, but later broke down, and had since been discharging. The patient had had whooping cough in childhood and has a cough every winter, but no other signs or symptoms suggestive of tuberculosis. She complained of dyspnea on exertion and precordial pain.

Examination revealed an irregular ulcerated area on the right side of the neck extending from the midline almost to the ear. There was evidence of scarring from healed areas of ulceration. The Wassermann test was negative. The old tuberculin test was positive in twenty-four hours.

The treatment consisted in antiseptic dressings, but there had been no improvement.

LUPUS VULGARIS; LUPUS ERYTHEMATOSUS (?) NODULAR TYPE. Presented by DR. CANNON. (From the Department of Dermatology and Syphilology, Vanderbilt Clinic.)

A. E., a woman, aged 66, appeared at the Clinic on Jan. 26, 1926, with an eruption on the right cheek. She said that this began as a red spot and gradually increased in size. She applied a pink solution. Her father was said to have died of tuberculosis about forty-six years ago. Over the right cheek was an irregularly shaped, red, infiltrated nodular lesion about 2 inches by 1½ inches (5 by 3.8 cm.) in diameter, surrounded by nodules. On pressure with a diascope, no pigmentation was observed in the nodules.

ULCERATING GUMMA OF THE DORSAL SURFACE OF THE TONGUE SIMULATING CARCINOMA. Presented by DR. BECHET.

M. F., a woman, aged 40, from Dr. Whitehouse's service, said that four months previously she had noticed a small growth on the dorsal surface of the tongue on a patch of leukoplakia. The tumor-like lesion grew rather rapidly until she came under observation three weeks prior to presentation. At that time there was a large walnut-sized tumor with a deeply ulcerated patch in front of it, situated on the lower third of the dorsum of the tongue. The tumor was of a boardlike hardness and very painful. There were still evidences of a leukoplakia at its edges. On the chin and cheeks were large, raised, flat, nodular lesions. The Wassermann test was +++++. The patient had received active mixed treatment for two weeks, and in that time the tumor had involuted to a marked degree, becoming almost flat, and the ulceration had almost healed.

INFECTIOUS ECZEMATOID DERMATITIS — INFANTILE ECZEMA. Presented by DR. ABRAMOWITZ. (From the Department of Dermatology and Syphilology, Vanderbilt Clinic.)

N. P., a boy, aged 3½ years, had previously been presented before the New York Dermatological Society.

(1) ECTHYMA; (2) SYPHILITIC ULCERS. Presented by DR. CANNON. (From the City Hospital.)

M. H., aged 54, had had gangrene and ulceration of the right leg, which was diagnosed as arteriosclerotic gangrene. The right leg was amputated above the knee in September, 1925. One month later, ulcers developed on the left leg. Examination showed small ulcers, punched out and discharging seropurulent exudate. Ammoniated mercury caused no improvement. The Wassermann reaction was ++++ in both antigens. The urine showed a slight trace of albumin, with granular casts. The hemoglobin content was 70 per cent; red blood cells, 3,840,000.

VITILIGOID SYPHILID. Presented by DR. HOWARD FOX and E. R. MALONEY.

Mrs. F. M., a mulatto, had suffered from the eruption for the past year. It was situated on the neck, shoulders and upper part of the chest, and consisted of discrete, nail-sized, depigmented macules on a slightly hyperpigmented base. There was no history of syphilitic infection. The Wassermann test was negative. No improvement had resulted from five injections of arsphenamine. One year previously the patient had received antisyphilitic treatment, the exact amount being unknown.

LUPUS FOLLICULARIS DISSEMINATUS FASCEI. Presented by DR. ABRAMOWITZ. (From the Department of Dermatology and Syphilology, Vanderbilt Clinic.)

L. H., a man, aged 36, came to the clinic, Jan. 29, 1926, with an eruption confined to the face. On the upper part of the cheeks, the lower part of the forehead, between the eyes and on the eyelids were many pinpoint to pinhead sized brownish to brownish-red follicular papules, some covered with a little crust; some showed apple jelly nodules. At the outer edge of each eye, they coalesced to form small patches. Some of the patches were pustular and some were depressed.

SYPHILITIC SUPERINFECTION. Presented by DR. PAROUNAGIAN.

W. H., an American negro, aged 28, presented himself at the Bellevue Syphilis Clinic on April 9, 1924, with a double chancre of the upper lip, and was shown at the May meeting of the Dermatological Section of the Academy. At that time the Wassermann and dark-field examinations were positive; after receiving seven injections of arsphenamine and seven of mercuric salicylate he discontinued his visits of his own accord.

On Jan. 21, 1926, he returned to the clinic, with a new lesion on the right side of the prepuce which had been present for about five days. He had been exposed frequently with different women, so that the period of incubation could not be definitely determined. His Wassermann and dark-field examinations were positive on that date. He had no other manifestations, but as both examinations were positive, he was placed under treatment.

After he had left New York, he had received four more injections of arsphenamine in Chicago, but no other treatment.

GRANULOMA ANNULARE. Presented by DR. BECHET.

W. W., a girl, aged 5, from Dr. Whitehouse's service, had had lesions on the right wrist and back of the left hand for one year previous to presentation. They consisted of ringlike, raised patches with a whitish border. Both lesions had improved more than 50 per cent after a single roentgen-ray treatment consisting of three and one-half minutes' exposure through 1 mm. of aluminum, using 5 milliampere 8 inch spark gap and 10 inch distance.

SYPHILITIC ALOPECIA. Presented by DR. HOWARD FOX and DR. E. R. MALONEY.

M. S., a man, aged 32, born in the United States, presented a moth-eaten alopecia of the scalp, of six weeks' duration. There was no history of a primary lesion, but about two months prior to presentation he developed a decided hoarseness, followed shortly by falling hair. A Wassermann test made on Jan. 28, 1926, gave a ++++ reaction.

CHANCRE OF THE EYEBROW (RIGHT SIDE), WITH SECONDARY LESIONS. Presented by DR. PAROUNAGIAN and DR. MASON.

B. W., aged 26, first came to the Bellevue Syphilis Clinic on Oct. 4, 1922, with a lesion at the sulcus and a bubo on the left groin. He had six dark-field examinations and four Wassermann tests, all of which were negative, and he showed no secondary manifestations. On Feb. 4, 1924, he again had a Wassermann test which was negative.

He returned to the clinic on Jan. 14, 1926, with a Wassermann +++ report, dated Oct. 9, 1925, from the health department. At that time he showed a marked healing, indurated lesion on the right eyebrow, a maculopapular eruption — more marked on the forehead and face — and swelling of the submaxillary glands. There was no evidence of chancre on the genitals. He had been exposed frequently with strangers.

The Wassermann test at Bellevue on Jan. 14, 1926, was ++++, and he was placed under treatment, having received three mercuric salicylate and two injections of arsphenamine up to the date of presentation.

MULTIPLE GUMMAS. Presented by DR. CANNON.

M. B., a laborer, aged 35, about fifteen days prior to presentation began to notice "sores" on both legs. He said that they were a result of tight shoes left on the feet for several days while he was on a "spree." His family and past history were essentially negative. His venereal history was also negative. The present history was also negative except for the ulcers on the legs, which were diagnosed as multiple gummas.

MYCOSIS FUNGOIDES. Presented by DR. ELLER for DR. OCHS.

A woman, aged 60 (previously presented before the Manhattan Dermatological Society), on the outer side of the left breast had a tumor mass, lobulated and deeply embedded, about the size of a small orange. On the inner part of the left arm, corresponding to the site where the arm would touch the breast, was a similar lesion, somewhat smaller, with the skin partly broken and slightly ulcerated. The case was presented on account of these isolated lesions without any previous eczematous lesions. The diagnosis was confirmed by biopsy.

DISCUSSION

DR. CHARGIN: This patient was presented before another society about six weeks ago. She showed no ulceration at that time, but large globular red tumor masses were present, and I made the diagnosis of mycosis fungoides at the time.

DR. POLLITZER: Cases of mycosis fungoides in which the first symptom is a tumor d'emblée, as the French call it, are rare. I cannot recall another case shown at this section.

DR. RULISON: The patient said that she had a small lesion which had been treated for ringworm before the fungating mass appeared.

MYCOSIS FUNGOIDES (TUMOR STAGE). Presented by DR. HOWARD FOX and DR. E. R. MALONEY.

A. V., aged 36, was previously shown at the Atlantic Dermatological Conference, Dec. 16, 1925.

MACULO-ANESTHETIC LEPROSY. Presented by DR. HOWARD FOX and DR. E. R. MALONEY.

E. B., a man, aged 21, was previously shown at the Atlantic Dermatological Conference, Dec. 16, 1925.

NODULAR LEPROSY. Presented by DR. HOWARD FOX and DR. E. R. MALONEY.

L. R., a man, aged 41, was previously shown at the Atlantic Dermatological Conference, Dec. 16, 1925.

NODULAR LEPROSY. Presented by DR. HOWARD FOX and DR. E. R. MALONEY.

T. L., a man, aged 66, was previously shown at the Atlantic Dermatological Conference, Dec. 16, 1925.

KAPOSI'S SARCOMA. Presented by DR. HOWARD FOX and DR. E. R. MALONEY.

P. Z., a man, aged 68, was previously shown at the Atlantic Dermatological Conference, Dec. 16, 1925.

OSCAR L. LEVIN, M.D., Secretary.

PHILADELPHIA DERMATOLOGICAL SOCIETY

Regular Meeting, Feb. 8, 1926

JOHN F. STOKES, M.D., *Presiding*

XANTHOMA TUBEROSUM. Presented by DR. KLAUDER.

P. D., aged 48, an Italian laborer, had had a mass on the forehead for two months. It appeared spontaneously. The Wassermann reaction was negative. There had been no blood chemistry examination. The general health was good. This mass was roughly the size of an English walnut, reddish and showed central ulcerations.

DISCUSSION

DR. WEIDMAN: I think the mass is malignant, possibly endothelioma. The fibrosarcomas undergo a xanthosis, and have been mistaken for a genuine xanthoma tuberosum.

DR. MUNSON: I agree with Dr. Weidman.

DR. STOKES: It certainly looks fibrosarcoma. I recommend biopsy as the only certain means of diagnosis.

NOTE.—Histologic studies have since shown that this lesion was a prickle cell carcinoma.

ELASTIC DEGENERATION OF THE SKIN. Presented by DR. WHITE for DR. STOKES.

Miss E. R., aged 36, a practical nurse, complained of a dry eczematoid plaque on the right side of the neck, of one year's duration. She had the same condition five years ago, starting as a pinhead papule. It was considered to be scrofula, and a plaster was applied, causing severe reaction, with a large atrophic scar. Biopsy showed elastic degeneration of the skin. Another biopsy was taken from the other side of the neck and the same condition found. The general health was good.

DISCUSSION

DR. WEIDMAN: Elastic tissue normally appears in large quantities in skin from the face, and an excess in sections should not be taken too highly as characteristic. This was to be recalled in connection with lupus erythematosus, for instance. There is a condition described as elastic degeneration of scars, and such a diagnosis might have been made in this case if a biopsy had not been taken from the other side of the neck and the same condition had been found in normal skin there.

CUTANEOUS LEISHMANIASIS. Presented by DR. SIDLICH.

J. S., aged 35, a colored man, was admitted with textbook lesions of granuloma inguinale in the perineal region and on the penis. At a later date, the lesions on the cheek appeared, and there were also lesions in the mouth. He was treated with tartar emetic intravenously. The inguinal lesions had healed, but the facial lesions were still present. Roentgenotherapy caused some improvement in the facial lesions. Laboratory reports showed the presence of Donovan's bodies from the facial lesions.

DISCUSSION

DR. KLAUDER: This is one of the few cases of cutaneous leishmaniasis which has been shown.

DR. WEIDMAN: In one case the lesion was on the lip, with Donovan's bodies present. In regard to Dr. Klauder's case, a large number of injections of tartar emetic failed to improve the facial lesion, but after the patient had been given bismuth there was marked improvement. In view of this fact, I would warn against accepting the diagnosis dogmatically.

DR. SIDLICH: The Wassermann test was repeatedly negative, and I cannot attribute the improvement to the bismuth. The patient received four roentgen-ray exposures, with distinct improvement after each.

DR. WRIGHT: Is tartar emetic efficacious in the treatment of granuloma inguinale?

DR. STOKES: The tartar emetic solution should not be boiled, in view of the fact that it decomposes and is not as effective.

DR. SIDLICH: When lesions of granuloma inguinale were treated by the roentgen ray and curettement, as was the custom ten years ago, there was much more improvement than with the tartar emetic.

DR. WEIDMAN: Dr. Randall used boiled tartar emetic in his pioneer series of American cases, and his statistics showed good results.

DR. GREENBAUM: Dr. Frazer of Australia a year ago reported good results in 50 per cent of the cases.

DR. STOKES: In the cases not responding to tartar emetic, radium was the remedy.

A CASE FOR DIAGNOSIS. Presented by DR. CORSON.

A. C., a child, aged 4 years, four weeks ago developed a number of small bluish-red macules, most of them being on the anterior surface of the trunk. There was no history of phenolphthalein or other drugs. There was no itching.

DISCUSSION

DR. SIDLICH: I should diagnose urticaria pigmentosa.

DR. WEIDMAN: I think it is a congenital disturbance of the linings of the veins, and referred to livido racemosa in which the condition is attributed to an underlying tuberculous dyscrasia. There is a weakening of the lining endothelium with dilatation of the blood vessels.

ACANTHOSIS NIGRICANS. Presented by DR. SIDLICH.

The patient was presented three months ago by Dr. Corson. Further studies revealed that he had taken a proprietary medicine, "Nature's Remedy Tablets," containing aloin, cascara, belladonna root and a small amount of podophyllum. A number of biopsies were made, from the palm, axilla and back. Nothing could be seen which corresponded to the sections described by Oswald. Roentgen-ray studies showed no evidence of visceral malignancy. The blood chemistry studies showed normal findings. The diagnosis was still acanthosis nigricans.

PRESENTED FOR DIAGNOSIS. By DR. WHITE.

K. G., aged 37, a colored man, had a lesion on the tongue of three months' duration. It was painless until last week. His own physician found a two plus Wassermann reaction. He was given six injections of neo-arsphenamine 0.9 Gm. each, and potassium iodide by mouth. The lesion had been stationary until the week before presentation, when it began to grow rapidly. Smear showed no Vincent's bacilli and no Donovan bodies. The patient had had a lesion on the penis three months ago.

DISCUSSION

DR. STOKES: It looks like the case of "lip and tongue" shown at New York, minus the "lip." That patient had the same history. The consensus of opinion was that that case was tuberculous.

NOTE.—Biopsy was performed later, resulting in a diagnosis of prickle cell carcinoma, with an underlying granulomatous state, probably syphilitic. The tip of the tongue was resected surgically and guinea-pigs were inoculated with the material.

KELOIDS. Presented by DR. PFAHLER.

F. B., a man, colored, aged 62, developed a squamous cell carcinoma in the keloid. He was burned by falling into a fire when 3 years old. He received treatment with the roentgen rays in 1898 on account of keloid. The scar was the thickness of the thumb on the side of the neck. One year before presentation, he had had erysipelas. The scar began to itch. At present he had epithelioma, 4 cm. by 2 cm., with a palpable lymph node. Histologic sections showed a squamous cell carcinoma. Immediately the old area was destroyed by electrocoagulation. The area extended down to the bone, which was scraped. A single dose of roentgen ray followed. It is remarkable that in spite of the fact that he had received radiation previously, the lesion had healed nicely when presented.

J. H., a white man, aged 56, in June, 1920, was burned by gas. The scars became thicker and covered the entire dorsal surface of the hands. The keloidal tissue was approximately 1 cm. thick. The patient was treated by the roentgen ray, with fairly good result, obtaining movable joints and good skin. This was in 1921. A skin graft was performed on the right hand at another place; he had had pain in that hand ever since the operation. He now had an epithelioma at the edge in the scar of the skin graft. The interesting fact is the improvement in the keloidal condition of the left hand, the excellent repair of the entire hand by surgery and the development of the epithelioma in the edge of the scar on the right hand.

DISCUSSION

DR. CORSON: I think electrocoagulation is the proper procedure in treating the epithelioma in the second case.

PRICKLE CELL CARCINOMA IN A BOY AGED 15. Presented by DR. WHITE.

J. D., aged 15, a school boy, two months before presentation, fell from a table, striking and cutting his left leg in front. The cuts (three) failed to heal. There was no pain, but a slight stinging at times. The lesions grew slightly, or rather remained stationary, instead of healing. The blood Wassermann test was negative. No tar or scharlach r was applied, and no arsenic was given internally. Sections were exhibited showing prickle cell carcinoma. This diagnosis was corroborated by two other pathologists.

DISCUSSION

DR. PFAHLER: I do not recall having seen any cases in persons of this age. I would advise electrocoagulation followed by roentgenotherapy as the treatment.

DR. SIDLICH: How often do epitheliomas of the lower third of the leg metastasize?

DR. PFAHLER: I recall two cases with metastasis. One patient had an epithelioma of the ankle with metastasis to the popliteal space, then to the groin, and finally to the femur.

DR. STOKES: I saw a case of epithelioma of the hand with metastasis to the vertebrae a number of years later. I have seen basal cell epithelioma in a girl aged 19 years.

ACRODERMATITIS PERSTANS OF HALLOPEAU. Presented by DR. KLAUDER.

A girl with this condition was presented to the society a year ago, and had made no progress. She was presented for suggestions as to treatment. Cultures of pustules were negative. There were no staphylococci or fungi present.

DISCUSSION

DR. WRIGHT: The lesions presented by this patient correspond with the description of acrodermatitis perstans of Hallopeau in Crocker's textbook. Crocker further stated that cure is difficult.

DR. KLAUDER: The patient has received practically every form of treatment: roentgen rays, ultraviolet rays, antiseptic lotions, pastes and ointments and foreign protein therapy. Organisms were present in smears from the pustules, but not in the cultures.

DR. STOKES: Biopsies might be taken and injected into guinea-pigs. I once saw a tuberculous dactylitis which persisted three or four years with the picture of acrodermatitis perstans.

ULCER OF THE LEG. DR. KLAUDER.

DR. KLAUDER showed a patient because of the excellent result following skin graft for a large ulcer of the leg. The ulcer completely encircled and covered the lower two thirds of the lower leg. Another treatment for ulcers of the leg used recently is the administration by mouth of $\frac{1}{10}$ grain (0.006 Gm.) parathyroid extract, and intravenously of 5 cc. of a 10 per cent solution of calcium lactate.

RETICULAR ATROPHY. Presented by DR. CORSON.

K. L., a man, aged 21, had acne vulgaris. In addition, he had certain depressed areas which were not the seat of acne pustules, and these depressed areas are now spreading fairly rapidly. Most of them were smaller than a finger-nail. There was a suggestion of reticulation in spots. He had had no roentgen ray. The lesions had never been inflammatory, and there was no preceding lesion.

DISCUSSION

DR. GREENBAUM: There are persons who never have had acne or folliculitis, who have numerous superficial scars on the face, which I think develop as the result of numerous minute injuries.

CARROLL S. WRIGHT, M.D., Secretary.

PITTSBURGH DERMATOLOGICAL SOCIETY

Thirty-Third Regular Meeting, Feb. 18, 1926

DR. HOLLANDER, *Presiding*

A CASE FOR DIAGNOSIS. Presented by DR. L. G. BEINHAUER.

J. G., a man, aged 22, complained of a sore tongue which began eight years before presentation as an ulceration on the tip. Examination revealed the tongue apparently too large for the flour of the mouth. The member was thick, red, inflamed and painful on manipulation. The median raphé presented a deep sulcus extending to the most posterior portion. Posteriorly there was marked hypertrophy of the papillae which appeared red and glazed through a grayish coating covering the posterior portion of the tongue. Anteriorly the coating was not prominent; instead there was a marked papillary hyper-

trophy, discrete in character, tender to the touch, embedded on an acutely inflammatory base. About the tip of the tongue was an erosive condition studded with a discrete papillary hypertrophy. The edge and under surface of the tongue was raw in appearance and tender to the touch, giving an acute inflammatory aspect. The tongue showed no acute ulcerative process, and the hypertrophy of the papillae was not unlike a filiform verruca in appearance. Bordering the median sulcus, the papillae showed a flattened, cauliflower appearance rather than the point filiform aspect so prominent near the tip and anterior ventral surface. The mucous membranes apparently were free, and the lesions were confined to the tongue alone. The ulceration on the dorsum was due to a biopsy section. All laboratory examinations were negative.

DISCUSSION

DR. GUY: Clinically, this case suggests vascular nevus, and histologically it is a fibro-angioma.

RAYNAUD'S DISEASE. Presented by DR. HOLLANDER.

Mrs. L. K., white, aged 46, presented a bilateral vascular change of the hands. The right hand showed the tip of the little and ring fingers to be reddish with a slight blue tinge, while the middle finger was definitely blue, showing a complete venous stasis on its distal and middle phalanges. The index finger was reddish at the tip and rather blue at the middle and proximal phalanges. The distal phalanx of the thumb was slightly red. The hand was colder than the forearm. The left hand showed a bluish-red color with slight swelling of the fingers, which was more pronounced in the little finger. The condition was first noticed in September, 1925, and it was always worse in the morning.

DISCUSSION

DR. NORRIS: I would suggest the diagnosis of erythema pernio. The condition will probably disappear in warm weather.

DR. GUY: I agree with the diagnosis. In a similar case the patient improved with parathyroid gland administered by Dr. Hollander.

DR. CRAWFORD: This is undoubtedly a case of Raynaud's disease in its early stages, the cold livid blue asphyxia of the fingers of each hand being typical. I recently used filtered roentgen ray over the brachial arteries in one case, and found that the persistent annoying pain was much relieved. I believe the condition as well was improved and would suggest a trial in this case.

TEAR GAS DERMATITIS. Presented by DR. CRAWFORD.

J. McC., white, American, aged 52, for two weeks had had an eruption of small, dry, red papules over the backs of his hands and forearms. He worked in a tear gas laboratory where he came in contact with the crude material, a preparation of chloracetephenol, a secret formula of the United States chemical warfare bureau. The material was ground to powder in a stone grinder and deposited itself on the workers' skin and clothing. There was a continuous watering of their eyes and noses, and if the powder on the skin were moistened it produced an irritation. They wiped the secretion from their noses with soft paper which was then thrown away. If they used a handkerchief the powder was deposited on the handkerchief from the nasal secretion and the skin was irritated if the handkerchief was used again. This patient attributed his eruption to wiping his nose with the backs of his hands. The workers

found that bathing with very hot water was the best means of ridding themselves of the powder.

A Case for Diagnosis. Presented by Dr. Guy and Dr. Jacob.

A white man, aged 25, presented an eruption of several months' duration. On the penis and scrotum and scattered over the inner sides of the thighs were sharply marginated, moderately infiltrated, dry, dull red plaques covered with heavy, imbricated, crumbly, grayish or yellowish crusts, the removal of which revealed an oozing, bleeding, papular base. The buttocks and lower part of the abdomen showed the same type of lesion, some of the smaller ones being follicular. The lesions had received a total of one unit of roentgen ray in five weeks, without appreciable effect.

DISCUSSION

Dr. Crawford: I regard this case as one of rupial psoriasis. The locations are in keeping with psoriasis, and the thick, adherent, piled up scale is of the rupial type. A scratched lesion showed punctate bleeding.

Dr. Guy: A number of types of treatment for both psoriasis and epidermophytosis had no effect on this case in five weeks. It suggested both psoriasis and soborrheic dermatitis. If a fungus is present, it must be an unusual variety. A similar case presented here before cleared up under treatment with a 10 per cent nitrate of mercury ointment, after numerous other remedies had failed.

Tinea Involving All of the Nails of the Hands and Feet. Presented by Dr. Phillips.

I. B., a white man, aged 30, presented either partial or total destruction of all nails of the hands and feet. The process began seven months ago on the nail of the middle finger of the right hand. At about the same time patches of dermatitis appeared on the hands and feet. The distal margin of the nail was first affected and gradually extended toward the base. The nails became friable and broke away from their attachment in regular fashion so that the line of demarcation was regular. The diagnosis of tinea was confirmed by microscope as well as by cultures.

DISCUSSION

Dr. Guy: In a similar case involving all nails in which a yeast was recovered, roentgenotherapy, Whitfield's ointment, thymol and othel local remedies were of no service. The Wassermann test was negative. But improvement occurred with mixed treatment. Possibly syphilis should be considered as a contributory cause in the present case.

Dr. Hollander: I believe that the symmetrical development rules out tinea.

Gumma of the Tongue with Possible Malignancy. Presented by Dr. Hollander.

R. J. D., a white man, aged 55, presented on the right side of the tongue a hypertrophic area, the center of which was ulcerated. The lesion followed the upper margin of the tongue and measured 1½ by ½ inches. The edges of the ulceration showed hardness. The patient had a primary syphilitic sore thirty-two years ago. The blood Wassermann test was 4 plus, as was also the Kahn precipitation test.

Fred M. Jacob, M.D., Secretary.

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, Feb. 23, 1926

A. S. CLARK, M.D., *President*

URTICARIA PIGMENTOSA IN AN ADULT. Presented by DR. HOWARD FOX.

M. G., aged 46, a physician, had suffered from the eruption for the past seven years. It consisted of discrete reddish and reddish-brown macules of split pea size; it was somewhat sparse in amount but was widely distributed and affected the trunk and extremities. The greatest number of lesions were located on the flexors of the arms and forearms and on the internal aspect of the thighs. Friction of the macules caused some increase in redness but no wheals. There were no subjective symptoms except slight "soreness in the summer." There was a very mild associated dermographism. The patient was a large, robust man, apparently in excellent health.

URTICARIA PIGMENTOSA IN AN ADULT. RECCURRENCE AFTER APPARENTLY SUCCESSFUL TREATMENT BY THE ROENTGEN RAY. Presented by DR. HOWARD FOX.

L. F., a man, aged 48, previously presented (ARCH. DERMAT. & SYPH. **8**:141 [July] 1923), had suffered from the eruption for seven years. It had previously disappeared temporarily after treatment by mercury vapor quartz lamp, given by Dr. Wise. Roentgen-ray treatment was then tried on one side of the trunk for the sake of comparison — one-half "skin unit," unfiltered, at intervals of two weeks. After six such treatments the eruption of the area treated (right side of trunk) had largely disappeared, and after a dozen treatments "only a very few lesions were visible." Later, the rest of the eruption on the back and left side of the trunk was treated by weekly doses of one-fourth "skin unit" of roentgen ray unfiltered, and eventually it disappeared almost completely. It began to recur, however, about four months after cessation of treatment, and at the time of presentation (six months after the last treatment was given) the eruption had entirely recurred and was fully as profuse as when the patient was first observed.

URTICARIA PIGMENTOSA IN AN ADULT. Presented by DR. FRASER.

M. S., a woman, aged 33, born in France of French parentage, with no history of skin disease in the family, had typical walnut brown macular lesions, first observed by the patient two and a half years previously. The lesions were smooth, flat, discrete and most numerous over the arms, breasts and inner surfaces of the thighs. They gave the characteristic urticarial reaction on being irritated, and the clinical diagnosis was corroborated by the histologic findings, namely, an abundant mast cell infiltration. The case was complicated by syphilis, but the patient had no knowledge of the time or mode of the infection. She was married and had one child; she had had two miscarriages.

Suggestions for treatment of the urticaria were requested.

DISCUSSION

ON CASES OF URTICARIA PIGMENTOSA

DR. MACKEE: Dr. Fraser's case is the most typical one. Dr. Fox's first case showed practically no pigmentation, but there was no question about the

correctness of the diagnosis. They all seemed to run true to form, but with some difference in the pigmentation. Clinically, this case differs markedly from the infantile type, not only in the size of the lesions and location, but in the color. The color of the congenital type is peculiar, a yellowish hue that suggests xanthoma.

DR. LANE: I agree with Dr. MacKee's statements.

DR. FRASER: The three cases present the essential clinical features of urticaria pigmentosa. In Dr. Fox's case, as pointed out by Dr. MacKee, the lesions show a lack of pigmentation. This feature, however, does not militate against the diagnosis, for it is known that light colored clinical lesions when examined microscopically may show much pigment. I suggest a biopsy in Dr. Fox's cases so that the clinical diagnosis may be supported, as it has been in my case, by the histologic findings.

Referring to the origin of the mast cells in the infiltration, my attention has been directed to an article by Dr. Graham Little in which he favors the view that these cells are derived from the blood. In support of this view, he calls attention to the fact that they are found surrounding the blood vessels. The weight of evidence would seem to favor the claim that they are not blood cells but tissue cells. As far as I know, they have never been found in normal or diseased blood. The so-called mast cells of the blood are different in their staining qualities and they give a positive, whereas the others give a negative, oxydase reaction.

DR. WHITEHOUSE: Dr. Fraser's case is especially interesting. It is a syphilitic case also, but that infection did not affect the character of the lesions. I would agree with the diagnosis in the other cases; the pigmentation which seems doubtful to some of the members is probably more distinct in daylight.

DR. HOWARD FOX: I am glad that there is a general agreement regarding the diagnosis of these three cases. Urticaria pigmentosa in the adult is a decidedly rare condition, and the opportunity of getting three such cases together at one meeting is unusual. The eruption seems to run true to form. The lesions are small and of a more or less uniform size. Many of them are distinctly reddish, contrasting with the yellowish color of the type seen in children. In the half dozen patients I can recall, including the present ones, the lesions were especially profuse on the internal aspect of the arms and forearms.

DR. MACKEE: I have treated a few cases of urticaria pigmentosa with the roentgen ray. In each instance, the eruption disappeared, but the improvement was only temporary. The roentgen-ray treatment is apparently of no real value in the treatment of the disease.

DR. HOWARD FOX: The ultimate result of roentgen-ray treatment in my case was a complete failure and is similar to the experience of Dr. Jeffrey Michael, who recently recorded his results in the ARCHIVES. He mentioned two other cases from the literature in which the eruption cleared up under the roentgen ray, but the final outcome was not known. In my case, the recurrence was first noted at the end of four months.

DR. WISE: I have observed several case in which intense radiation with ultraviolet light caused temporary disappearance of the lesions, but recurrence was the rule.

URTICARIA PIGMENTOSA IN A CHILD. Presented by DR. WHITEHOUSE.

W. H., aged 2½ years, had lesions which appeared when the child was 3 months old; they were generalized on the body mostly, but there were some on the extremities and neck. They varied from the size of a pinhead to 2 cm. or more in diameter, conforming in shape to the lines of the skin cleavage. They were irregular in outline, were reddish brown, and lit up on rubbing. Otherwise there were no subjective symptoms.

DISCUSSION

DR. HOWARD FOX: I agree with the diagnosis and consider this a classic case or urticaria pigmentosa of the type seen in children. The eruption in such cases invariably disappears around the age of puberty. The lesions vary in size and are generally considerably larger than those seen in the adult type. Their color is characteristically yellowish, not reddish.

DR. HIGHMAN: There is nothing to say about the case clinically except to agree with the diagnosis — but I do not know that this is the place to discuss the purely histologic matter that Dr. Fraser brought up; in fact, any purely technical discussion that concerns the origin of cells seems out of place in a clinical society. There are only two ways in which mast cells can originate, either from the mast cells circulating in the blood or from the ancestral cells that give rise to all round cell infiltrations. Until we actually see a cell springing from its parent or so perfect the method of staining that we can connect cells with their ancestors, I do not think it will be possible for dermatologists to speculate on this subject. Personally, I have no deep feeling about such matters. When present in large numbers, mast cells are distinctive histologic findings; when absent in the involutional stages of lesions, the finding is not adverse to urticaria pigmentosa. I think this question arose at a meeting two months ago, and I then urged reperusal of Hartzell's paper, one of the best articles on the subject that has been written.

LUPUS VULGARIS SUCCESSFULLY TREATED WITH RADIUM. Presented by DR. CLARK.

N. O'G., a housemaid, aged 38, had formerly been shown before the Society. She first came under observation two and one-half years prior to presentation, with an extensive infiltrated deep type of lupus vulgaris of most of the face, from which she had suffered for twenty-five years. Under two or three applications of the hard beta rays of radium to each area, the condition had almost entirely cleared up. It was of the thick infiltrated type, the kind that seems to respond best to radium. The superficial type is little affected by it.

DISCUSSION

DR. WISE: I would be glad if I could clear up a case of lupus vulgaris with so good a result. I should like to know the technic employed.

DR. CLARK: The patients are treated with full strength 25 mg. plaques, filtered with 0.1 mm. brass and 5 mm rubber for a period of about one and a half hours, or eighty minutes. It produces a mild erythema of the area treated, and usually requires two or three applications for each lesion. So far, we have had few telangiectases following the treatment. This patient has now received no treatment for nearly a year.

DR. MACKEE: This is one of the best therapeutic results that I have ever seen. The explanation for the excellent result is partly in the skilful technic and partly in the type of lupus vulgaris. It is a well-known fact that hypertrophic lupus and ulcerative lupus yield very well to the roentgen ray or radium, whereas the atrophic type with deeply embedded small nodules does not respond well to irradiation. My results have been equally good with the roentgen ray or gamma rays of radium. In some instances beta rays produce better results than the roentgen ray or gamma rays. I destroy with electrodesiccation nodules that do not respond quickly to irradiation, so as to avoid so much irradiation. Dr. Clark is to be congratulated on this splendid result.

DR. CLARK: I agree that radium is very disappointing in the treatment of the atrophic type of lupus vulgaris; it is also disappointing in the treatment of the superficial type of lupus erythematosus. It is only in the hypertrophic type that I have been able to obtain any results with radium. I believe the same thing can be accomplished with the roentgen ray as with radium, but my reason for using the latter is that I am more familiar with it, and its ease of application.

SARCOID OF BOECK. Presented by DR. WHITEHOUSE.

Mrs. R. S., aged 23, born in Russia, had lived in this country for four years. She had been married ten months, and had had no pregnancy or miscarriage. Five months prior to presentation, a small papule appeared on the inner side of the left knee, the size of a pea, and this slowly extended in size and depth until it presented as shown an indurated bluish-red growth with smooth surface, 5 cm. in diameter and raised 1.5 cm. above the level. It was painless and not tender.

DISCUSSION

DR. HOWARD FOX: It seems to be a case in which the diagnosis can be made only by histologic examination.

DR. FRASER: I agree with Dr. Fox that we will have to rely on a histologic examination for a diagnosis.

DR. KINGSBURY: My impression is that Dr. Whitehouse did not make a positive diagnosis but merely a tentative one. Just from looking at the patient, that seems the most likely diagnosis.

DR. WISE: I agree with Dr. Kingsbury that from a superficial examination of the patient, sarcoid seems the most likely diagnosis.

DR. HIGHMAN: I should be inclined to agree unequivocally with the diagnosis suggested except that it seems to be rather bulky and too deep. The woman was sitting in a peculiar posture, and it was difficult to determine whether the tumor was really adherent or only seemed so. If it is not sarcoid, it is probably a gumma.

DR. WHITEHOUSE: I do not know whether the patient will submit to a biopsy, but I agree with the consensus of opinion that that is the only way to make a definite diagnosis.

PHENOLPHTHALEIN ERUPTION. Presented by DR. WHITEHOUSE.

A. D., a plumber, aged 32, said that this was the third attack he had had within a year. The eruption appeared half an hour after taking "Ex-Lax." Besides the characteristic oval erythematous lesions on the body, he at first showed a large edematous red swelling of the penis; he now presents an

indurated erythematous swelling of the hands. At the beginning he had lesions in the mouth, and the lips and the tongue were intensely swollen.

DISCUSSION

DR. WISE: We have photographs of three patients with bullous eruptions of the penis associated with phenolphthalein exanthem.

GRANULOMA INGUINALE. Presented by DR. WHITEHOUSE.

J. T., a negro laborer, aged 28, was born in West Virginia and had lived in New York for eight years. Granuloma began on the shaft of the penis, two years prior to presentation, and spread to both groins. He had been under treatment at Bellevue, where he received arsphenamine and mercury, with no improvement. At the City Hospital he received twenty-eight or thirty injections of tartar emetic, with immense improvement. Donovans' bodies had been demonstrated at that time. He seemed now to be cured.

DISCUSSION

DR. KINGSBURY: Treatment with tartar emetic in these cases is variable — sometimes very good, at other times not so good — and there are recurrences. This man happened to be in my service and received in conjunction with the tartar emetic some injections of vaccine; we found that in that way we were getting better results. The cases showed a remarkably good scarring, and no tendency to recurrence.

MYCOSIS OF THE NAILS (?). Presented by DR. STETSON for DR. CLARK.

G. C., aged 13, the son of a physician, came under observation with a diagnosis of mycosis of the nails, from which he had suffered for three years. All the nails of both hands and both feet were involved. The distal portions of the nails were broken; the proximal portions looked fairly normal, but were very thin, soft, easily indented and a little tender. The patient had received every form of treatment, including roentgen-ray, with no improvement. Since January he had been treated by baking, an hour a day except on Sundays, at a temperature of 240 to 260 degrees. This seemed to produce slight improvement, although Dr. Clark was inclined to think it was due simply to the hyperemia which affected the nutrition. Of late, some doubt had arisen as to the correctness of the diagnosis, for it seemed difficult to believe that any parasite could accomplish the process shown by the nails.

DISCUSSION

DR. MACKEE: I doubt that in the present state of our clinical knowledge of nail diseases we can safely make an absolute clinical diagnosis except in occasional cases. At times, ringworm of the nails is manifested by pitting or by ridges and furrows, with or without an associated paronychia. In such instances, some form of dystrophy is suggested, or a pyogenic paronychia. In other cases, there may be a marked subungual keratosis, suggesting parapsoriasis. Typical cases, of course, show an exfoliation of nail substance at the distal end or at the lateral edges of the nails. In this case, my unequivocal diagnosis is ringworm. In spite of an occasional brilliant result, all forms of treatment have been disappointing in my hands. This includes roentgen ray, radium, ultraviolet radiation, heat, topical applications, etc. In such an obstinate case as this it would seem justifiable to remove the nails surgically.

DR. WHITEHOUSE: Did I understand Dr. Stetson to say that this was not regarded as ringworm? I thought the fungus had been discovered.

DR. CLARK: We did regard it as a ringworm infection, but we have not found the fungus and are now beginning to believe that it is not a fungus condition.

DR. KINGSBURY: It seems to be a case in which the surgical removal of all the nails might be warranted.

DR. HOWARD FOX: I feel somewhat doubtful about the diagnosis of onychomycosis in this case. The rapidity of onset and the fact that all the nails of the fingers and toes are affected are against this diagnosis. Such a condition is, of course, possible, as Sabouraud and others have stated. Before concluding that this case is not mycotic, I think that more strenuous efforts should be made to find the fungus. Scrapings of the nails should be made in considerable quantity and observations made after they have soaked for hours in the potash solution. I do not quite agree with Dr. MacKee about the clinical appearance of onychomycosis, but regard it as rather characteristic in the majority of cases. I formerly had the opportunity of seeing a large number of such cases at Ellis Island, when the immigration was heavy. In many cases the local pathologist was able to demonstrate fungus after crushing up considerable portions of the nails. The treatment of those immigrant cases was by ablation of the nails under a general anesthetic.

DR. HIGHMAN: Clinically it looks like ringworm of all the nails. As to avulsion of the nails, in my limited experience the disappointments have been as great as with any other method of treatment. I do not know anything better than the method mentioned by Dr. MacKee. I think that with a little persistence the organism may be found. What strength solution of sodium hydrate was used in the examination?

DR. HOWARD FOX: Fifteen per cent.

DR. HIGHMAN: I would suggest 50 per cent. It saves time, and if you slightly heat the slide, enough to cause a bubble or two, and then look for the fungi they are more easily found.

DR. HOWARD FOX: As a rule, I do not think much is gained by culture if it is found impossible to demonstrate the fungus microscopically. I have had a number of disappointments in trying to cultivate the fungus in cases in which it was microscopically present.

DR. SCHWARTZ: I agree with Dr. Fox that the sudden onset and extensive distribution of the disease is against ringworm. I think it points to some toxic disturbance of the nutrition of the nails. I have had occasion to examine a number of such cases of dystrophy of the nails with extensive involvement. In every case we found a marked gastro-intestinal disturbance, usually marked carbohydrate fermentation. Under appropriate treatment the condition would be relieved, but when the intestinal condition recurred the lesions on the nails would also recur. I am inclined to believe that there is some such cause in this instance.

DR. WISE: I agree with those that regard it as ringworm, and also with Dr. Fox's suggestion to give the boy an anesthetic and have the nails removed surgically.

DR. CLARK: I am not inclined to favor the diagnosis of ringworm of the nails, because of the sudden extensive involvement of so many nails and also because of a feature that strikes me every time I see the patient — the nails are as soft as can be all the way from the matrix to the end; they have

not the consistency of the ordinary nail. I am therefore beginning to believe that it is a neurotrophic or toxic condition producing the dystrophy, as Dr. Schwartz suggested. It is different from any ringworm of the nails that I have ever seen. I have never seen that soft character of all the nails up to the very skin edge.

DR. PELS: While I am not inclined to the diagnosis of ringworm, I think persistent bacteriologic examinations should be carried out. I had an instance recently in which bacteriologic culture gave the organism rather than did the scrapings. I should favor what has been said about ruling out some trophic disturbance by a thorough neurologic examination. I also suggest a tentative procedure by way of avulsion of the nails — removing one only and noting the results. They might not grow again.

DR. CLARK: I would be a little fearful of that too, on account of the soft character of the nails.

DR. MACKEE: It is well not to be satisfied with microscopic examination of scrapings in the case of nail diseases. Cultures should be made in order to identify the organism. I have found the monilia in two cases. These organisms could not have been identified without a culture. Regarding the rapid spread of ringworm of the nails, I have had several cases in which one nail after another was involved so that all the nails became affected within a few weeks. Such rapid widespread involvement by no means militates against a diagnosis of ringworm.

EPITHELIOMA OF THE EAR: PREVIOUSLY REPORTED AS CHONDRODERMATITIS CHRONICA HELICIS. Presented by DR. HOWARD FOX.

H. C. H., a physician aged 50, was first presented before the Society on May 19, 1925. He had suffered for one year from a pea-sized lesion of the antihelix of the left ear. A prominent symptom was pain, and especially tenderness when the affected side of the head lay on a pillow. The diagnosis of chondrodermatitis had been accepted by all the members present.

On Jan. 12, 1926, a piece of tissue was excised for microscopic study, and a section was made by Dr. J. Frank Fraser. The section showed the classic picture of a prickle cell epithelioma. A photomicrograph of this was presented.

J. E. LANE, Secretary.

Book Reviews

DISEASES OF THE SKIN. By ROBERT L. SUTTON. Sixth edition. Price, $12. Pp. 1303, with 1158 illustrations, 11 of them colored plates. St. Louis: C. V. Mosby Company, 1926.

It is only necessary to call attention to the sixth edition of Sutton's well known work. It has been brought up to date.

THE NATIONAL MEDICAL MANUAL — YEAR BOOK OF TREATMENT AND PRACTITIONERS INDEX. Price, $6.00. Pp. 555. New York: William Wood & Company.

This widely known year book comes in its familiar form. Any enterprise of this sort that has continued for forty-four years, and remains as vigorous and useful as this one, has justified itself and needs no flattery. It is an exceedingly valuable summary of the progress of medicine. It is abundantly supplied with black and white illustrations and with colored plates. Altogether it is one of the best annuals, and its value is not damaged by the fact that it is of a size which is practical both in price and for reading. It contains an excellent summary of the outstanding contributions to dermatology.

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